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July 11, 2011

Ms. Cindy Campisano Environmental Health & Engineering, Inc. 117 Fourth Avenue Needham, MA 02494

LABORATORY REPORT

Project: EH&E/17228 Lab ID: 142678 Received: 06-15-11

Dear Cindy:

Enclosed are the analytical results for the above referenced project. The project was processed for Standard turnaround.

This letter authorizes the release of the analytical results, and should be considered a part of this report. This report contains a sample receipt report detailing the samples received, a project narrative indicating project changes and non-conformances, a quality control report, and a statement of our state certifications.

The analytical results contained in this report meet all applicable NELAC standards, except as may be specifically noted, or described in the project narrative. The analytical results relate only to the samples received. This report may only be used or reproduced in its entirety.

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Should you have any questions concerning this report, please do not hesitate to contact me.

Sincerely,

Karyn E. Raymond Project Manager

Karyn E. Raymond

KER/ker



Sample Receipt Report

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Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-1	124581		Soil	6/13/2011 7:55	EPA 8082 PCB	S			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	Receipt	Notes
C2028711	120 mL Amber Glass	Proline	BX39300	None	n/a	n/a	n/a		
	= 1115								I
Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-2	124582		Soil	6/13/2011 7:55	EPA 8082 PCB				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	Receipt	Notes
C2026/10	120 mL Amber Glass	Proline	BX39300	None	n/a	n/a	n/a		
Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-3	124583 MS		Soil	6/13/2011 7:55	EPA 8082 PCB	S			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	Receipt	Notes
C2028712	120 mL Amber Glass	Proline	BX39300	None	n/a	n/a	n/a		
1.1.15	r: LLID								N
Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-4	124583 MSD		Soil	6/13/2011 7:55	EPA 8082 PCB				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	Receipt	Notes
C2019480	120 mL Amber Glass	n/a	n/a	None	n/a	n/a	n/a		
Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-5	124584		Soil	6/13/2011 7:55	EPA 8082 PCB	s			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	Receipt	Notes
C2028713	120 mL Amber Glass	Proline	BX39300	None	n/a	n/a	n/a		
Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-6	124585		Soil	6/13/2011 7:55	EPA 8082 PCB			1	
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	Receipt	Notes
C2028/20	120 mL Amber Glass	Proline	BX39300	None	n/a	n/a	n/a		
Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-7	124586 MS		Soil	6/13/2011 7:55	EPA 8082 PCB	s			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	Receipt	Notes
	120 mL Amber Glass	Proline	BX39300	None	n/a	n/a	n/a		
Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-8	124586 MSD		Soil	6/13/2011 7:55	EPA 8082 PCB		_		
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	Receipt	Notes
C2019496	120 mL Amber Glass	n/a	n/a	NaOH	n/a	n/a	n/a		
Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-9	124587		Soil	6/13/2011 8:10	EPA 8082 PCB	S			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	Receipt	Notes
ļ	120 mL Amber Glass	Proline	BX39300	None	n/a	n/a	n/a		
	<u> </u>							•	
Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-10			Soil	6/13/2011 8:10	EPA 8082 PCB			1	
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	Receipt	Notes
C2028709	120 mL Amber Glass	Proline	BX39300	None	n/a	n/a	n/a		
Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-11			Soil	6/13/2011 8:10	EPA 8082 PCB	S			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	Receipt	Notes
	120 mL Amber Glass	Proline	BX39300	None	n/a	n/a	n/a		
C2028/08									



Project: EH&E/17228 Delivery: GWA Courier Temperature: 2.8°C Client: Environmental Health & Engineering, Inc. Lab ID: 142678 Delivery: hold Chain of Custody: Present Lab Receipt: 06-15-11 Custody Seal(s): n/a

Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-12	124589 MSD		Soil	6/13/2011 8:10	EPA 8082 PCE	Bs			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	Receipt	Notes
C2019495	120 mL Amber Glass	n/a	n/a	None	n/a	n/a	n/a		
LLID	E. ITID		14.1.	C 1.1	14 d 1				N
Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-13			Soil	6/13/2011 8:10	EPA 8082 PCE		ci :	n	N. c
Con ID	Container 120 mL Amber Glass	Vendor n/a	QC Lot	Preserv None	QC Lot	Prep n/a	Ship n/a	Receipt	Notes
C2019494	120 IIIL AIIIbei Glas:	II/d	II/d	None	II/a	II/a	II/d		
Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-14	124591		Soil	6/13/2011 8:10	EPA 8082 PCE	Bs			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	Receipt	Notes
C2028723	120 mL Amber Glass	Proline	BX39300	None	n/a	n/a	n/a		
Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-15	124592 MS		Soil	6/13/2011 8:10	EPA 8082 PCE		T	T	
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	Receipt	Notes
C2028714	120 mL Amber Glass	Proline	BX39300	None	n/a	n/a	n/a		
Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-16	124592 MSD		Soil	6/13/2011 8:10	EPA 8082 PCE	35			1 10 10 1
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	Receipt	Notes
	120 mL Amber Glass	n/a	n/a	None	n/a	n/a	n/a		
Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-17	124593		Soil	6/13/2011 8:30	EPA 8082 PCE	3s			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	Receipt	Notes
C2028718	120 mL Amber Glass	Proline	BX39300	None	n/a	n/a	n/a		
Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-18			Soil	6/13/2011 8:30	EPA 8082 PCE	35			1 1000
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	Receipt	Notes
	120 mL Amber Glass	Proline	BX39300	None	n/a	n/a	n/a		
Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-19	124595		Soil	6/13/2011 8:45	EPA 8082 PCE	3s			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	Receipt	Notes
C2028619	120 mL Amber Glass	Proline	BX39303	None	n/a	n/a	n/a		
Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-20			Soil	6/13/2011 8:45	EPA 8082 PCE	Rc .			110103
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	Receipt	Notes
-	120 mL Amber Glass	Proline	BX39303	None	n/a	n/a	n/a	кссері	110103
						,	1	1	1
Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-21	124597		Soil	6/13/2011 8:50	EPA 8082 PCE	Bs			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	Receipt	Notes
C2028721	120 mL Amber Glass	Proline	BX39300	None	n/a	n/a	n/a		
Lab ID	Field ID		Matrix	Sampled	Method				Notes
				•		26			ivotes
142678-22		Vondor	Soil QC Lot	6/13/2011 8:55	EPA 8082 PCE		Ch:-	Dossint	Notes
Con ID	Container 120 mL Amber Glass	Vendor Proline	BX39300	Preserv None	QC Lot n/a	Prep n/a	Ship n/a	Receipt	Notes
CZ020722	120 ME / Milber Glas:	Tome	DA33300	None	11/4	11/4	11/4	1	



Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-23	124599		Soil	6/13/2011 8:57	EPA 8082 PCB	S			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	Receipt	Notes
C2028707	120 mL Amber Glass	Proline	BX39300	None	n/a	n/a	n/a		
1 1 15	r: IIID								N. c
Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-24	1	., .	Soil	6/13/2011 8:59	EPA 8082 PCB		cl ·	· ·	N. d
C2028612	Container 120 mL Amber Glass	Vendor Proline	QC Lot BX39303	Preserv None	QC Lot	Prep n/a	Ship n/a	Receipt	Notes
C2020012	120 IIIL / IIIIDEI Glas:	TTOTTTE	DX39303	None	11/a	11/a	11/a		
Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-25	124601		Soil	6/13/2011 9:06	EPA 8082 PCB	S			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	Receipt	Notes
C2028700	120 mL Amber Glass	Proline	BX39300	None	n/a	n/a	n/a		
Lab ID	Field ID		Matrix	Campled	Method				Notes
				Sampled		_			Notes
142678-26	Container	Vendor	Soil	6/13/2011 9:08 Preserv	EPA 8082 PCB		Shin	Docaint	Notes
C2028705	120 mL Amber Glass	Proline	QC Lot BX39300	None	QC Lot n/a	Prep n/a	Ship n/a	Receipt	Notes
22020703	o z , unber Gras.		2.133300	. tone	.,, a	α	.,,,,		
Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-27	124603		Soil	6/13/2011 9:22	EPA 8082 PCB	S			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	Receipt	Notes
C2028706	120 mL Amber Glass	Proline	BX39300	None	n/a	n/a	n/a		
Lab ID	Field ID		Matrix	Sampled	Method				Notes
			Soil	-	EPA 8082 PCB				Notes
142678-28 Con ID	Container	Vendor	QC Lot	6/13/2011 9:24 Preserv	QC Lot	Prep	Ship	Receipt	Notes
ļ	120 mL Amber Glass	Proline	BX39300	None	n/a	n/a	n/a	кесеірі	Notes
Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-29	124605		Soil	6/13/2011 9:49	EPA 8082 PCB	s			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	Receipt	Notes
C2028615	120 mL Amber Glass	Proline	BX39303	None	n/a	n/a	n/a		
Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-30			Soil	6/13/2011 9:58	EPA 8082 PCB	c			110103
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	Receipt	Notes
	120 mL Amber Glass	Proline	BX39303	None	n/a	n/a	n/a	лесстрі	
Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-31	124607		Soil	6/13/2011 10:00	EPA 8082 PCB	S			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	Receipt	Notes
C2028614	120 mL Amber Glass	Proline	BX39303	None	n/a	n/a	n/a		
Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-32			Soil	6/13/2011 10:03	EPA 8082 PCB	S			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	Receipt	Notes
	120 mL Amber Glass	Proline	BX39300	None	n/a	n/a	n/a	лесстрі	
					1				
Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-33	124609		Soil	6/13/2011 10:06	EPA 8082 PCB	S	_		
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	Receipt	Notes
C2028618	120 mL Amber Glass	Proline	BX39303	None	n/a	n/a	n/a		



Lab ID:	1420/0		Lab Receipt: 06-15-11 Cu					Custo	ay Seai(s): n/a
Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-34			Soil	6/13/2011 10:08	EPA 8082 PCB				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	Receipt	Notes
	120 mL Amber Glass	Proline	BX39300	None	n/a	n/a	n/a	песенре	rtotes
Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-35	124611		Soil	6/13/2011 10:23	EPA 8082 PCB	3			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	Receipt	Notes
C2028616	120 mL Amber Glass	Proline	BX39303	None	n/a	n/a	n/a		
1 1 10	E. ITID			C 1.1	Mad I				N
Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-36			Soil	6/13/2011 10:23	EPA 8082 PCB		91.1		
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	Receipt	Notes
C2028617	120 mL Amber Glass	Proline	BX39303	None	n/a	n/a	n/a		
Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-37	124613 MS		Soil	6/13/2011 10:23	EPA 8082 PCB	;			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	Receipt	Notes
	120 mL Amber Glass	Proline	BX39303	None	n/a	n/a	n/a		
							1	1	
Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-38	124613 MSD		Soil	6/13/2011 10:23	EPA 8082 PCB	3			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	Receipt	Notes
C2019498	120 mL Amber Glass	n/a	n/a	None	n/a	n/a	n/a		
I-LID	Field ID		A4-4-4	Cld	Method				Nister
Lab ID			Matrix	Sampled					Notes
142678-39		37 1	Soil	6/13/2011 10:24	EPA 8082 PCB		cl :	D 1.	N. c
Con ID	Container	Vendor Proline	QC Lot	Preserv	QC Lot	Prep	Ship n/a	Receipt	Notes
C2020024	120 mL Amber Glass	rioiine	BX39303	None	II/d	n/a	II/d		
Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-40	124615		Soil	6/13/2011 10:24	EPA 8082 PCB	;			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	Receipt	Notes
C2028622	120 mL Amber Glass	Proline	BX39303	None	n/a	n/a	n/a	•	
			T				•		
Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-41	124616 MS		Soil	6/13/2011 10:28	EPA 8082 PCB	3			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	Receipt	Notes
C2028625	120 mL Amber Glass	Proline	BX39303	None	n/a	n/a	n/a		
Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-42			Soil	6/13/2011 10:28	EPA 8082 PCB				110103
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	Receipt	Notes
	120 mL Amber Glass	n/a	n/a	None	n/a	n/a	n/a	Keceipt	ivotes
22013311	. 20 me / miser Glas:	11/4	11/4	110110	1,,α	11/4	11/4	1	
Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-43	124617		Soil	6/13/2011 10:28	EPA 8082 PCB	3			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	Receipt	Notes
C2028621	120 mL Amber Glass	Proline	BX39303	None	n/a	n/a	n/a		
									1
Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-44			Soil	6/13/2011 10:45	EPA 8082 PCB				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	Receipt	Notes
C2028627	120 mL Amber Glass	Proline	BX39303	None	n/a	n/a	n/a		



Lab ID.	1420/0			Lab Receipt: 06-15-11 Ct					ay Seai(s): n/a
Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-45	124619 MS		Soil	6/13/2011 10:45	EPA 8082 PC	Bs			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	Receipt	Notes
C2028626	120 mL Amber Glass	Proline	BX39303	None	n/a	n/a	n/a		
Lab ID	Field ID		Matrix	Sampled	Method				Notes
	124619 MSD		Matrix	-	EPA 8082 PC	D-			Notes
142678-46 Con ID	Container	Vendor	Soil QC Lot	6/13/2011 10:45 Preserv	QC Lot	Prep	Ship	Receipt	Notes
	120 mL Amber Glass	n/a	n/a	None	n/a	n/a	n/a	кесеірі	Notes
			1.7.4		1.7.4.				
Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-47	124620		Soil	6/13/2011 10:45	EPA 8082 PC	Bs		i	
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	Receipt	Notes
C2028620	120 mL Amber Glass	Proline	BX39303	None	n/a	n/a	n/a		
Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-48			Soil	6/13/2011 10:48	EPA 8082 PC	Bs			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	Receipt	Notes
C2028610	120 mL Amber Glass	Proline	BX39303	None	n/a	n/a	n/a		
1.1.5	et II.a								N. 4
Lab ID	Field ID		Matrix	Sampled	Method				Notes
		V I	Soil	6/13/2011 10:57	EPA 8082 PC		cl ·	n · .	N
C2028606	Container 120 mL Amber Glass	Vendor Proline	QC Lot BX39303	Preserv None	QC Lot n/a	Prep n/a	Ship n/a	Receipt	Notes
C2020000	120 IIIE / WIIDCI Glas.	TTOIIIC	DA33303	None	11/4	11/4	11/4		
Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-50	124627		Soil	6/13/2011 11:00	EPA 8082 PC	Bs			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	Receipt	Notes
C2028608	120 mL Amber Glass	Proline	BX39303	None	n/a	n/a	n/a		
Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-51	124628		Soil	6/13/2011 11:26	EPA 8082 PC	Bs			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	Receipt	Notes
C2028607	120 mL Amber Glass	Proline	BX39303	None	n/a	n/a	n/a		
									1
Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-52		Von -1 - ::	Soil	6/13/2011 11:30	EPA 8082 PC		Cl-!	Do	Notes
Con ID	Container 120 mL Amber Glass	Vendor Proline	QC Lot BX39301	Preserv None	QC Lot n/a	Prep n/a	Ship n/a	Receipt	Notes
C2020000	120 IIIE / MIDEL GIRS:	1 TOTTILE	27.55501	HOHE	11/4	11/4	11/4	<u> </u>	
Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-53	124634		Soil	6/13/2011 11:34	EPA 8082 PC	Bs			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	Receipt	Notes
C2028694	120 mL Amber Glass	Proline	BX39301	None	n/a	n/a	n/a		
Lab ID	Field ID		Matrix	Sampled	Method				Notes
			Soil	6/13/2011 11:37	EPA 8082 PC	Bs			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	Receipt	Notes
	120 mL Amber Glass	Proline	BX39301	None	n/a	n/a	n/a		
Lab ID	Field ID		Matrix	Sampled	Method				Notes
			Soil	6/13/2011 11:43	EPA 8082 PC				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship n/a	Receipt	Notes
C2028685	120 mL Amber Glass	Proline	BX39301	None	n/a	n/a	n/a		



Lab ID:	1420/0			Lab Receipt: 06-15-11 Cu					ay Seai(s): n/a
Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-56			Soil	6/14/2011 10:10	EPA 8082 PCBs	:			Notes
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	Receipt	Notes
	120 mL Amber Glass	Proline	BX39302	None	n/a	n/a	n/a	кесеірі	Notes
					1.00	.,			
Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-57	124644		Soil	6/14/2011 10:20	EPA 8082 PCBs	3			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	Receipt	Notes
C2028655	120 mL Amber Glass	Proline	BX39302	None	n/a	n/a	n/a		
									1
Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-58			Soil	6/14/2011 10:35	EPA 8082 PCBs	3	ı	ı	
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	Receipt	Notes
C2028674	120 mL Amber Glass	Proline	BX39302	None	n/a	n/a	n/a		
Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-59			Soil	-	EPA 8082 PCBs	,			rtotes
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	Receipt	Notes
	120 mL Amber Glass	Proline	BX39301	None	n/a	n/a	n/a	кесеірі	Notes
C2020033	120 IIIE / Uniber Glas.	Tronne	D/(33301	Hone	11/4	174	174		
Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-60	124647		Soil	6/14/2011 10:50	EPA 8082 PCBs	;			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	Receipt	Notes
C2028692	120 mL Amber Glass	Proline	BX39301	None	n/a	n/a	n/a		
					I				
Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-61	124648		Soil	6/14/2011 11:05	EPA 8082 PCBs	3			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	Receipt	Notes
C2028677	120 mL Amber Glass	Proline	BX39301	None	n/a	n/a	n/a		
Lab ID	Field ID		Matrix	Sampled	Method				Notes
			Soil	6/14/2011 11:00	EPA 8082 PCBs				Notes
142678-62 Con ID	Container	Vendor	QC Lot	Preserv			Chin	Dossint	Notes
	120 mL Amber Glass	Proline	BX39301	None	QC Lot n/a	Prep n/a	Ship n/a	Receipt	Notes
C2020001	120 IIIE / Uniber Glas.	Tronne	D/(33301	Hone	11/4	174	174		
Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-63	124650		Soil	6/14/2011 11:10	EPA 8082 PCBs	;			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	Receipt	Notes
C2028678	120 mL Amber Glass	Proline	BX39301	None	n/a	n/a	n/a		
Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-64			Soil		EPA 8082 PCBs		ı	1	
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	Receipt	Notes
C2028680	120 mL Amber Glass	Proline	BX39301	None	n/a	n/a	n/a		
Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-65			Soil	6/14/2011 11:30	EPA 8082 PCBs	,			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot		Ship	Receipt	Notes
	120 mL Amber Glass	Proline	BX39301	None	n/a	Prep n/a	n/a	receipt	INUTES
22020070	120 IIIE / Milber Glas.	7 1011110	2//3/301	Hone	11/4	174	11/4	1	
Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-66	124653		Soil	6/14/2011 11:45	EPA 8082 PCBs	3			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	Receipt	Notes
	120 mL Amber Glass	Proline	BX39302	None	n/a	n/a	n/a		



200 101	112070				Lab Receipt. 00-13-11				iy Seal(s). II/a
Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-67	124654		Soil	6/14/2011 11:57	EPA 8082 PCBs	i			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	Receipt	Notes
C2028671	120 mL Amber Glass	Proline	BX39302	None	n/a	n/a	n/a		
									T
Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-68		., .	Soil	6/14/2011 12:15	EPA 8082 PCBs		01.1		
Con ID	Container 120 mL Amber Glass	Vendor Proline	QC Lot	Preserv	QC Lot	Prep	Ship	Receipt	Notes
C2020073	120 IIIL AIIIDEI GIAS	rioiine	BX39302	None	n/a	n/a	n/a		
Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-69	124346		Soil	6/14/2011 12:15	EPA 8082 PCBs				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	Receipt	Notes
C2028670	120 mL Amber Glass	Proline	BX39302	None	n/a	n/a	n/a		
Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-70		., .	Soil	6/14/2011 12:25	EPA 8082 PCBs		cl t		N. d
C2028664	Container	Vendor	QC Lot BX39302	Preserv	QC Lot	Prep	Ship n/a	Receipt	Notes
C2028004	120 mL Amber Glass	Proline	DA39302	None	n/a	n/a	n/a		
Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-71	124348		Soil	6/14/2011 12:25	EPA 8082 PCBs	i			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	Receipt	Notes
C2028663	120 mL Amber Glass	Proline	BX39302	None	n/a	n/a	n/a		
	= 11.5								T
Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-72		., .	Soil	6/14/2011 12:33	EPA 8082 PCBs		cl t	- · ·	N. a
C2028665	Container 120 mL Amber Glass	Vendor Proline	QC Lot BX39302	Preserv None	QC Lot n/a	Prep n/a	Ship n/a	Receipt	Notes
C2020003	120 IIIL AIIIbei Glass	rionne	DA39302	None	11/4	II/d	II/d		
Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-73	124350		Soil	6/14/2011 13:05	EPA 8082 PCBs	1			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	Receipt	Notes
C2028662	120 mL Amber Glass	Proline	BX39302	None	n/a	n/a	n/a		
Lab ID	Field ID		Matuis	Sampled	Method				Notes
			Matrix	•					Notes
142678-74 Con ID	Container	Vendor	Soil QC Lot	6/14/2011 13:05 Preserv	QC Lot		Ship	Dossint	Notes
C2028657		Proline	BX39302	None	n/a	Prep n/a	n/a	Receipt	Notes
22020037	J J J Glas.		5.133302	. 10110	.,, u		.44	<u> </u>	
Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-75	124352		Soil	6/14/2011 13:15	EPA 8082 PCBs				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	Receipt	Notes
C2028656	120 mL Amber Glass	Proline	BX39302	None	n/a	n/a	n/a		
Lab ID	Field ID		Matrix	Sampled	Method				Notes
			Matrix	•					ivotes
142678-76		Vandar	Soil QC Lot	6/14/2011 13:15	EPA 8082 PCBs		Chin	Dogoir+	Notes
Con ID C2028696	Container 120 mL Amber Glass	Vendor Proline	BX39301	Preserv None	QC Lot n/a	Prep n/a	Ship n/a	Receipt	Notes
22020000	1.20 IIIE / IIIIDCI Gidas:	TTOTTIC	DA33301	140110	1,,α	11/4	1//α		
Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-77	124354		Soil	6/14/2011 13:30	EPA 8082 PCBs				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	Receipt	Notes



Lab ID:	1420/0		Lab Receipt: 06-15-11 Cu					Custoc	ay Seal(s): n/a
Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-78			Soil	6/14/2011 13:30	EPA 8082 PCBs	:			. votes
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	Receipt	Notes
	120 mL Amber Glass	Proline	BX39301	None	n/a	n/a	n/a	пессірі	Notes
Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-79	124356		Soil	6/14/2011 13:40	EPA 8082 PCBs	5			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	Receipt	Notes
C2028669	120 mL Amber Glass	Proline	BX39302	None	n/a	n/a	n/a		
Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-80			Soil	6/14/2011 13:40	EPA 8082 PCBs				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	Receipt	Notes
C2028666	120 mL Amber Glass	Proline	BX39302	None	n/a	n/a	n/a		
Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-81			Soil	•	EPA 8082 PCBs				. Total
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	Receipt	Notes
C2028661		Proline	BX39302	None	n/a	n/a	n/a	кессірі	Notes
02020001	120 III27 IIII001 Glas.		27.53302	.,	.,,	11/4	174		
Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-82	124359		Soil	6/14/2011 13:50	EPA 8082 PCBs	3			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	Receipt	Notes
C2028658	120 mL Amber Glass	Proline	BX39302	None	n/a	n/a	n/a		
_									
Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-83			Soil	6/14/2011 14:05	EPA 8082 PCBs	5		Ĭ:	
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	Receipt	Notes
C2028653	120 mL Amber Glass	Proline	BX39302	None	n/a	n/a	n/a		
Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-84			Soil	6/14/2011 14:05	EPA 8082 PCBs				Total
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	Receipt	Notes
	120 mL Amber Glass	Proline	BX39302	None	n/a	n/a	n/a	кесеірі	Notes
02020075	120 III27 IIII001 Glas.		27.53302	.,	.,,	11/4	174		
Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-85	124362		Soil	6/14/2011 14:25	EPA 8082 PCBs	3			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	Receipt	Notes
C2028634	120 mL Amber Glass	Proline	BX39294	None	n/a	n/a	n/a		
	Ft I Line			6 11					N. A
Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-86			Soil		EPA 8082 PCBs				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	Receipt	Notes
C2028639	120 mL Amber Glass	Proline	BX39294	None	n/a	n/a	n/a		
Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-87			Soil	6/14/2011 14:30	EPA 8082 PCBs	<u> </u>			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	Receipt	Notes
	120 mL Amber Glass	Proline	BX39294	None	n/a	n/a	n/a	кесеірі	110113
	Time since Glas.								
Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-88	124365		Soil	6/14/2011 14:35	EPA 8082 PCBs	5			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	Receipt	Notes
C2028642	120 mL Amber Glass	Proline	BX39294	None	n/a	n/a	n/a		



Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-89	124366		Soil	6/14/2011 14:52	EPA 8082 PC	Bs			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Notes		
C2028667	120 mL Amber Glas	Proline	BX39302	None	n/a	n/a	n/a		

Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-90	124367		Soil	6/14/2011 14:57	EPA 8082 PC	Bs			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Receipt	Notes	
C2028660	120 mL Amber Glas	Proline	BX39302	None	n/a	n/a	n/a		

Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-91	124368		Soil	6/14/2011 15:05	EPA 8082 PC	Bs			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	Receipt	Notes
C2028659	120 mL Amber Glas	Proline	BX39302	None	n/a	n/a	n/a		

Lab ID	Field ID		Matrix	Sampled	Method		Notes		
142678-92	124369		Soil	6/14/2011 15:10	EPA 8082 PC	Bs			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	Receipt	Notes
C2028652	120 mL Amber Glas	Proline	BX39302	None	n/a	n/a	n/a		

Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-93	124370		Aqueous	6/14/2011 14:00	PA 8082 PCBs				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	Receipt	Notes
C2033012	1 L Amber Glass	Proline	BX39211	None	n/a	n/a	n/a		

Lab ID	Field ID		Matrix	Sampled	Method				Notes
142678-94	124371		Aqueous	6/14/2011 14:00	EPA 8082 PC	Bs			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	Receipt	Notes
C2033011	1 L Amber Glass	Proline	BX39211	None	n/a	n/a	n/a		



Data Certification

 Project:
 EH&E/17228
 Lab ID:
 142678

 Client:
 Environmental Health & Engineering, Inc.
 Received:
 06-15-11
 19:15

			N	Mass D	EP Analytica	l Protoc	ol Certificati	on Form			
Pro	ject Location:		n/a						MA DEP RTN:	n/a	
This	s Form provides	certifi	cations for the	follov	wing data set	:					
EPA	8082:	142678	8-1 through -94	4							
San	nple Matrices:	Ground	dwater/Surface	(X)	Soil/Sedimer	nt (X)	Drinking Wa	ter ()	Air ()	Othe	r ()
CA	M Protocol (che	ck all t					1			T	
	8260 VOC	, ,	7470/7471 F	_	Mass DEP \	/PH	8081 Pesti	cides	7196 Hex Cr	Mass DEP	APH
	CAM II A 8270 SVOC	()	CAM III B 7010 Metals	()	CAM IV A Mass DEP E	()	CAM V B 8151 Herb	()	CAM VI B () 8330 Explosives	CAM IX A	()
	CAM II B	()	CAM III C	()	CAM IV B	()	CAM V C	()	CAM VIII A ()		()
	6010 Metals	()	6020 Metals	()	8082 PCB	()	9012 Cyar		6860 Perchlorate	CAUTIA	()
	CAM III A	()	CAM III D	()	CAM V A	(X)	CAM VI A		CAM VIII B ()		
An	affirmative resp	onse to	o questions A t	throug	h F are requi	red for "	Presumptive	Certaint	y" status.		
A.	Were all sami	oles rec	ceived in a cor	dition	consistent w	ith those	described or	n the Cha	in-of-Custody.		
			including temp								
	within metho	d holdi	ng times?							Yes	
В.			method(s) and	all asso	ociated QC r	equirem	ents specified	d in the se	elected CAM	.,	
	protocol(s) fo	llowed	?							Yes	
C.	Were all requ	ired co	rrective action	e and	analytical rec	nonse ac	tions specific	ed in the	salacted CAM		
C.			nted for all ide						Science C/ IIVI	Yes	
	p. 0.000 (0, 11.1	P			p 00					-	
D.									AM VII A, "Quality		
	Assurance and	d Qual	ity Control Gu	ideline	es for the Acq	uisition	and Reportin	g of Anal	ytical Data"?	Yes	
	VOLL FOLL	LADII	.1 1 1	14/	1 4 1		. 1 91 .		1:6: .: / >2		
E.			methods only: ual method(s) f					significant	modification(s)?	NA	
	(Kelel to the I	Haivia	dai memou(s) i	OI a IIS	ot or significal	it illouill	Cations).			19/1	
F.	Were all appl	icable	CAM protocol	QC an	nd performan	ce standa	ard non-conf	ormances	identified and		
			atory narrative							Yes	
Res	ponses to quest	ions G	H and I belov	v are r	equired for "	Presum	tive Certain	ty" status			
G.	Ware the rep	orting I	imits at or belo	w all (CAM reportin	a limite	specified in t	ho salact	od CAM		
u.	protocol(s)?	Jitiligi	illins at of beit	Jw an c	C/ (ivi reportii	ig illilis	specified in t	ile selecti	eu C/ (IVI	No	
	p. 0.000.(0).									.,,	
	a User Note: D										
usa	ibility and repr	esenta	ativeness req	uirem	ents describ	oed in 3	10 CMR 40.	1056(2)(k	and WSC-07-350		
Н.	Were all OC	nerforn	nance standarc	ls snec	ified in the C	AM prot	ocol(s) achie	ved?		No	
	Wele all Qe	periorii	nance standare		inca in the C	, avi prot	0001(3) defile	veu.		140	
I.	Were results i	reporte	d for the comp	lete an	nalyte list spe	cified in	the selected	CAM pro	tocol(s)?	Yes	
All	negative respon	ses mu	st be addresse	ed in ar	n attached la	boratory	narrative.			"	
res		btainir	ng the inform	ation,	the materia				on my personal inc I report is, to the b		•
		1/	, , ,								
Sign	nature:	Ka	ryn E. Ra	ymen	d		Position:	Proiec	t Manager		
			,	•				,	Ü		
Prir	nted Name:		Karyn E. Raym	nond			Date:	07-11-	·11		



Field ID: 124581 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-01 QC Batch ID: PB-3757-X

Sampled: 06-13-11 07:55 Instrument ID: GC-11 Agilent 6890

06-15-11 19:15 Received: Sample Weight: 31 g Extracted: 06-16-11 14:15 Final Volume: 1 mL Cleaned Up: 06-20-11 21:00 Percent Solids: 82 06-21-11 11:21 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	47	
11104-28-2	Aroclor 1221	BRL	ug/Kg	47	
11141-16-5	Aroclor 1232	BRL	ug/Kg	47	
53469-21-9	Aroclor 1242	BRL	ug/Kg	47	
12672-29-6	Aroclor 1248	BRL		ug/Kg	47
11097-69-1	Aroclor 1254	300	2C (290)*	ug/Kg	47
11096-82-5	Aroclor 1260	230	2C (170)*	ug/Kg	47
37324-23-5	Aroclor 1262 [†]	BRL		ug/Kg	47
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	47

QC Surrogate C	ompound	Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	8	4	53 %	30 - 150 %
Column	Decachlorobiphenyl	8	5	63 %	30 - 150 %
Second	Tetrachloro-m -xylene	8	4	53 %	30 - 150 %
Column	Decachlorobiphenyl	8	5	60 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 2C Concentration reported from second column.



Field ID: 124582 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-02 QC Batch ID: PB-3757-X

Sampled: 06-13-11 07:55 Instrument ID: GC-11 Agilent 6890

06-15-11 19:15 Received: Sample Weight: 31 g Extracted: 06-16-11 14:15 Final Volume: 1 mL Cleaned Up: 06-20-11 21:00 Percent Solids: 82 06-21-11 11:54 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit		
12674-11-2	Aroclor 1016	BRL		ug/Kg	47		
11104-28-2	Aroclor 1221	BRL		ug/Kg	47		
11141-16-5	Aroclor 1232	BRL		ug/Kg	47		
53469-21-9	Aroclor 1242	BRL	BRL				
12672-29-6	Aroclor 1248	BRL		ug/Kg	47		
11097-69-1	Aroclor 1254	500	1C (470)*	ug/Kg	47		
11096-82-5	Aroclor 1260	360	2C (280)*	ug/Kg	47		
37324-23-5	Aroclor 1262 [†]	BRL		ug/Kg	47		
11100-14-4	Aroclor 1268 [†]	BRI		ug/Kg	47		

QC Surrogate	QC Surrogate Compound			Recovery	QC Limits
First	Tetrachloro-m -xylene	8	6	79 %	30 - 150 %
Column	Decachlorobiphenyl	8	8	97 %	30 - 150 %
Second	Tetrachloro-m -xylene	8	6	79 %	30 - 150 %
Column	Decachlorobiphenyl	8	7	91 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 1C Concentration reported from first column.
- 2C Concentration reported from second column.



Matrix Spike and Matrix Spike Duplicate EPA Method 8082

			Parent Sample	Matrix Spike	Spike Duplicate
Field ID:	124581	Laboratory ID:	142678-01	142678-03	142678-04
Project:	EH&E/17228	Sampled:	06-13-11 07:55	06-13-11 07:55	06-13-11 07:55
Client:	Environmental Health & Engineering, Inc.	Received:	06-15-11 19:15	06-15-11 19:15	06-15-11 19:15
Matrix:	Soil	Extracted:	06-16-11 14:15	06-16-11 14:15	06-16-11 14:15
Container:	120 mL Amber Glass	Cleaned Up:	06-20-11 21:00	06-20-11 21:00	06-20-11 21:00
Preservation:	Cool	Analyzed:	06-21-11 11:21	06-21-11 12:18	06-21-11 12:18
		Analyst:	CRL	CRL	CRL
		QC Batch ID:	PB-3757-X	PB-3757-X	PB-3757-X
		Instrument ID:	GC-11 Agilent 6890	GC-11 Agilent 689	9(GC-11 Agilent 6890
		Sample Weight:	31g	30g	31g
		Final Volume:	1 mL	1 mL	1 mL
		Percent Solids:	82	82	82
		Dilution Factor:	1	1	1

CAS Number	Analyte	Unspiked	MS	MS Me	asured	MS Re	covery	MSD	MSD M	easured	MSD R	ecovery	RI	D.	QC Lim	iits
		Sample	Spiked	1st Col	2nd Col	1st Col	2nd Col	Spiked	1st Col	2nd Col	1st Col	2nd Col	1st Col	2nd Col	Spike	RPD
		(ug/Kg)	(ug/Kg)	(ug/Kg)	(ug/Kg)			(ug/Kg)	(ug/Kg)	(ug/Kg)						
12674-11-2	Aroclor 1016	BRL	200	190	210	95 %	104 %	200	220	240	111 %	120 %	14 %	13 %	40 - 140%	50 %
11096-82-5	Aroclor 1260	230	200	400	480	111 %	121 %	200	450	540	136 %	155 % s	11 %	13 %	40 - 140%	50 %

QC Surrogate Compound		Surrogate Recovery							QC Limits				
Tetrachloro-m-xylene	53%	8	6	6	70%	69%	8	6	6	71%	71%		30 - 150 %
Decachlorobiphenyl	63%	8	7	6	81%	80%	8	9	9	117%	109%		30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3546. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on a dry weight basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

s Result outside recommended limits due to analyte concentration native to the sample.



Field ID: 124584 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-05 QC Batch ID: PB-3758-X

Sampled: 06-13-11 07:55 Instrument ID: GC-11 Agilent 6890

06-15-11 19:15 Received: Sample Weight: 30 g Extracted: 06-16-11 17:30 Final Volume: 1 mL Cleaned Up: 06-21-11 23:00 Percent Solids: 89 06-22-11 03:00 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	45
11104-28-2	Aroclor 1221	BRL		ug/Kg	45
11141-16-5	Aroclor 1232	BRL		ug/Kg	45
53469-21-9	Aroclor 1242	BRL		ug/Kg	45
12672-29-6	Aroclor 1248	300	2C (240)*	ug/Kg	45
11097-69-1	Aroclor 1254	170	2C (140)*	ug/Kg	45
11096-82-5	Aroclor 1260	BRL		ug/Kg	45
37324-23-5	Aroclor 1262 [†]	BRL		ug/Kg	45
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	45

QC Surrogate	Compound	Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	7	6	80 %	30 - 150 %
Column	Decachlorobiphenyl	7	6	75 %	30 - 150 %
Second	Tetrachloro-m -xylene	7	6	84 %	30 - 150 %
Column	Decachlorobiphenyl	7	6	75 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 2C Concentration reported from second column.



Field ID: 124585 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-06 QC Batch ID: PB-3757-X

Sampled: 06-13-11 07:55 Instrument ID: GC-11 Agilent 6890

06-15-11 19:15 Received: Sample Weight: 31 g Extracted: 06-16-11 14:15 Final Volume: 1 mL Cleaned Up: 06-20-11 21:00 Percent Solids: 88 06-21-11 13:05 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	44
11104-28-2	Aroclor 1221	BRL		ug/Kg	44
11141-16-5	Aroclor 1232	BRL		ug/Kg	44
53469-21-9	Aroclor 1242	BRL		ug/Kg	44
12672-29-6	Aroclor 1248	230	1C (210)*	ug/Kg	44
11097-69-1	Aroclor 1254	250	1C (190)*	ug/Kg	44
11096-82-5	Aroclor 1260	BRL		ug/Kg	44
37324-23-5	Aroclor 1262 [†]	BRL		ug/Kg	44
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	44

QC Surrogate	QC Surrogate Compound		Measured	Recovery	QC Limits
First Tetrachloro-m-xylene		7	6	84 %	30 - 150 %
Column	Decachlorobiphenyl	7	6	75 %	30 - 150 %
Second	Tetrachloro-m -xylene	7	7	95 %	30 - 150 %
Column	Decachlorobiphenyl	7	5	72 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 1C Concentration reported from first column.



Matrix Spike and Matrix Spike Duplicate EPA Method 8082

			Parent Sample	Matrix Spike	Spike Duplicate
Field ID:	124584	Laboratory ID:	142678-05	142678-07	142678-08
Project:	EH&E/17228	Sampled:	06-13-11 07:55	06-13-11 07:55	06-13-11 07:55
Client:	Environmental Health & Engineering, Inc.	Received:	06-15-11 19:15	06-15-11 19:15	06-15-11 19:15
Matrix:	Soil	Extracted:	06-16-11 17:30	06-16-11 17:30	06-16-11 17:30
Container:	120 mL Amber Glass	Cleaned Up:	06-21-11 23:00	06-21-11 23:00	06-21-11 23:00
Preservation:	Cool	Analyzed:	06-22-11 03:00	06-22-11 03:23	06-22-11 03:47
		Analyst:	CRL	CRL	CRL
		QC Batch ID:	PB-3758-X	PB-3758-X	PB-3758-X
		Instrument ID:	GC-11 Agilent 6890	GC-11 Agilent 689	0 GC-11 Agilent 6890
		Sample Weight:	30g	30g	31g
		Final Volume:	1 mL	1 mL	1 mL
		Percent Solids:	89	89	89
		Dilution Factor:	1	1	1

CAS Number	Analyte	Unspiked	MS	MS Me	MS Measured		MS Recovery		MSD Measured		MSD Recovery		RPD		QC Limits	
		Sample	Spiked	1st Col	2nd Col	1st Col	2nd Col	Spiked	1st Col	2nd Col	1st Col	2nd Col	1st Col	2nd Col	Spike	RPD
		(ug/Kg)	(ug/Kg)	(ug/Kg)	(ug/Kg)			(ug/Kg)	(ug/Kg)	(ug/Kg)						
12674-11-2	Aroclor 1016	BRL	190	340	370	182 % m	201 % m	180	360	370	199 % m	202 % m	8 %	1 %	40 - 140%	50 %
11096-82-5	Aroclor 1260	BRL	190	230	280	125 %	150 % m	180	260	300	140 %	163 % m	10 %	7 %	40 - 140%	50 %

QC Surrogate Compoun	nd	Surrogate Recovery										QC Limits		
Tetrachloro-m-xylene		80%	7	6	6	82%	81%	7	6	6	85%	83%		30 - 150 %
Decachlorobiphenyl		75%	7	7	8	100%	107%	7	7	9	98%	120%		30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3546. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on a dry weight basis.

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

m Result outside recommended limits due to sample matrix interference.



Field ID: 124587 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-09 QC Batch ID: PB-3760-X

Sampled: 06-13-11 08:10 Instrument ID: GC-13 Agilent 6890

06-15-11 19:15 Received: Sample Weight: 31 g Extracted: 06-21-11 13:30 Final Volume: 1 mL Cleaned Up: 06-24-11 15:00 Percent Solids: 87 06-24-11 18:57 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	45
11104-28-2	Aroclor 1221	BRL		ug/Kg	45
11141-16-5	Aroclor 1232	BRL		ug/Kg	45
53469-21-9	Aroclor 1242	BRL		ug/Kg	45
12672-29-6	Aroclor 1248	BRL		ug/Kg	45
11097-69-1	Aroclor 1254	170	1C (130)*	ug/Kg	45
11096-82-5	Aroclor 1260	110	2C (69)*	ug/Kg	45
37324-23-5	Aroclor 1262 [†]	BRL		ug/Kg	45
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	45

QC Surrogate	Compound	Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	8	7	92 %	30 - 150 %
Column	Decachlorobiphenyl	8	7	97 %	30 - 150 %
Second	Tetrachloro-m -xylene	8	7	96 %	30 - 150 %
Column	Decachlorobiphenyl	8	8	104 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 1C Concentration reported from first column.
- 2C Concentration reported from second column.



Field ID: 124588 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-10 QC Batch ID: PB-3757-X

Sampled: 06-13-11 08:10 Instrument ID: GC-11 Agilent 6890

06-15-11 19:15 Received: Sample Weight: 31 g Extracted: 06-16-11 14:15 Final Volume: 1 mL Cleaned Up: 06-20-11 21:00 Percent Solids: 88 06-21-11 13:29 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	45
11104-28-2	Aroclor 1221	BRL		ug/Kg	45
11141-16-5	Aroclor 1232	BRL		ug/Kg	45
53469-21-9	Aroclor 1242	BRL		ug/Kg	45
12672-29-6	Aroclor 1248	BRL		ug/Kg	45
11097-69-1	Aroclor 1254	210	1C (180)*	ug/Kg	45
11096-82-5	Aroclor 1260	130	2C (94)*	ug/Kg	45
37324-23-5	Aroclor 1262 [†]	BRL		ug/Kg	45
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	45

QC Surrogate	Compound	Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	7	7	93 %	30 - 150 %
Column	Decachlorobiphenyl	7	8	110 %	30 - 150 %
Second	Tetrachloro-m -xylene	7	7	90 %	30 - 150 %
Column	Decachlorobiphenyl	7	8	107 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 1C Concentration reported from first column.
- 2C Concentration reported from second column.



Matrix Spike and Matrix Spike Duplicate EPA Method 8082

			Parent Sample	Matrix Spike	Spike Duplicate
Field ID:	124587	Laboratory ID:	142678-09	142678-11	142678-12
Project:	EH&E/17228	Sampled:	06-13-11 08:10	06-13-11 08:10	06-13-11 08:10
Client:	Environmental Health & Engineering, Inc.	Received:	06-15-11 19:15	06-15-11 19:15	06-15-11 19:15
Matrix:	Soil	Extracted:	06-21-11 13:30	06-21-11 13:30	06-21-11 13:30
Container:	120 mL Amber Glass	Cleaned Up:	06-24-11 15:00	06-24-11 15:00	06-24-11 15:00
Preservation:	Cool	Analyzed:	06-24-11 18:57	06-24-11 19:21	06-24-11 19:45
		Analyst:	CRL	CRL	CRL
		QC Batch ID:	PB-3760-X	PB-3760-X	PB-3760-X
		Instrument ID:	GC-11 Agilent 6890	GC-11 Agilent 689	90 GC-11 Agilent 6890
		Sample Weight:	31g	30g	31g
		Final Volume:	1 mL	1 mL	1 mL
		Percent Solids:	87	87	87
		Dilution Factor:	1	1	1

CAS Number	Analyte	Unspiked	MS	MS Me	MS Measured		MS Recovery		MSD Measured		MSD Recovery		RPD		QC Limits	
		Sample	Spiked	1st Col	2nd Col	1st Col	2nd Col	Spiked	1st Col	2nd Col	1st Col	2nd Col	1st Col	2nd Col	Spike	RPD
		(ug/Kg)	(ug/Kg)	(ug/Kg)	(ug/Kg)			(ug/Kg)	(ug/Kg)	(ug/Kg)						
12674-11-2	Aroclor 1016	BRL	190	240	200	125 %	105 %	190	210	220	109 %	114 %	12 %	9 %	40 - 140%	50 %
11096-82-5	Aroclor 1260	110	190	260	290	101 %	93 %	190	260	320	100 %	109 %	1 %	11 %	40 - 140%	50 %

QC Surrogate Compound		Surrogate Recovery										QC Limits	
Tetrachloro-m-xylene	80%	8	6	7	77%	91%	8	6	7	81%	85%		30 - 150 %
Decachlorobiphenyl	75%	8	7	7	90%	94%	8	7	8	96%	106%		30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3546. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on a dry weight basis.

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.



Field ID: 124590 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-13 QC Batch ID: PB-3761-X

Sampled: 06-13-11 08:10 Instrument ID: GC-13 Agilent 6890

06-15-11 19:15 Received: Sample Weight: 30 g Extracted: 06-22-11 03:00 Final Volume: 1 mL Cleaned Up: 06-25-11 18:00 86 Percent Solids: 06-27-11 13:07 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	46
11104-28-2	Aroclor 1221	BRL		ug/Kg	46
11141-16-5	Aroclor 1232	BRL		ug/Kg	46
53469-21-9	Aroclor 1242	BRL		ug/Kg	46
12672-29-6	Aroclor 1248	BRL		ug/Kg	46
11097-69-1	Aroclor 1254	97	1C (63)*	ug/Kg	46
11096-82-5	Aroclor 1260	47	2C (34)*	ug/Kg	46
37324-23-5	Aroclor 1262 [†]	BRL		ug/Kg	46
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	46

QC Surrogate	Spiked	Measured	Recovery	QC Limits	
First	Tetrachloro-m -xylene	8	7	84 %	30 - 150 %
Column	Decachlorobiphenyl	8	7	94 %	30 - 150 %
Second	Tetrachloro-m -xylene	8	6	83 %	30 - 150 %
Column	Decachlorobiphenyl	8	7	96 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 1C Concentration reported from first column.
- 2C Concentration reported from second column.



Field ID: 124591 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-14 QC Batch ID: PB-3757-X

Sampled: 06-13-11 08:10 Instrument ID: GC-11 Agilent 6890

06-15-11 19:15 Received: Sample Weight: 31 g Extracted: 06-16-11 14:15 Final Volume: 1 mL Cleaned Up: 06-20-11 21:00 Percent Solids: 88 06-21-11 13:52 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	44
11104-28-2	Aroclor 1221	BRL		ug/Kg	44
11141-16-5	Aroclor 1232	BRL		ug/Kg	44
53469-21-9	Aroclor 1242	BRL		ug/Kg	44
12672-29-6	Aroclor 1248	BRL		ug/Kg	44
11097-69-1	Aroclor 1254	80	1C (75)*	ug/Kg	44
11096-82-5	Aroclor 1260	58	2C (34)*	ug/Kg	44
37324-23-5	Aroclor 1262 [†]	BRL		ug/Kg	44
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	44

QC Surrogate Co	Spiked	Measured	Recovery	QC Limits	
First	Tetrachloro-m -xylene	7	6	77 %	30 - 150 %
Column	Decachlorobiphenyl	7	6	78 %	30 - 150 %
Second	Tetrachloro-m -xylene	7	6	74 %	30 - 150 %
Column	Decachlorobiphenyl	7	6	83 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 1C Concentration reported from first column.
- 2C Concentration reported from second column.



Matrix Spike and Matrix Spike Duplicate EPA Method 8082

			Parent Sample	Matrix Spike	Spike Duplicate
Field ID:	1245890	Laboratory ID:	142678-13	142678-15	142678-16
Project:	EH&E/17228	Sampled:	06-13-11 08:10	06-13-11 08:10	06-13-11 08:10
Client:	Environmental Health & Engineering, Inc.	Received:	06-15-11 19:15	06-15-11 19:15	06-15-11 19:15
Matrix:	Soil	Extracted:	06-22-11 03:00	06-22-11 03:00	06-22-11 03:00
Container:	120 mL Amber Glass	Cleaned Up:	06-25-11 18:00	06-25-11 18:00	06-25-11 18:00
Preservation:	Cool	Analyzed:	06-27-11 13:07	06-27-11 13:30	06-27-11 13:54
		Analyst:	CRL	CRL	CRL
		QC Batch ID:	PB-3761-X	PB-3761-X	PB-3761-X
		Instrument ID:	GC-11 Agilent 6890	GC-11 Agilent 689	90 GC-11 Agilent 6890
		Sample Weight:	30g	30g	30g
		Final Volume:	1 mL	1 mL	1 mL
		Percent Solids:	86	86	86
		Dilution Factor:	1	1	1

CAS Number	Analyte	Unspiked	MS	MS Me	asured	MS Re	covery	MSD	MSD M	easured	MSD R	ecovery	RI	ď	QC Lim	iits
		Sample	Spiked	1st Col	2nd Col	1st Col	2nd Col	Spiked	1st Col	2nd Col	1st Col	2nd Col	1st Col	2nd Col	Spike	RPD
		(ug/Kg)	(ug/Kg)	(ug/Kg)	(ug/Kg)			(ug/Kg)	(ug/Kg)	(ug/Kg)						
12674-11-2	Aroclor 1016	BRL	190	200	190	105 %	101 %	190	200	190	110 %	100 %	2 %	3 %	40 - 140%	50 %
11096-82-5	Aroclor 1260	47	190	210	250	96 %	107 %	190	220	240	99 %	106 %	1 %	3 %	40 - 140%	50 %

QC Surrogate Compound						Surro	gate Re	covery				QC Limits
Tetrachloro-m-xylene	84%	8	6	6	78%	79%	7	6	6	82%	82%	30 - 150 %
Decachlorobiphenyl	94%	8	7	7	92%	94%	7	7	7	98%	97%	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3546. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on a dry weight basis.

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.



Field ID: 124593 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-17 QC Batch ID: PB-3757-X

Sampled: 06-13-11 08:30 Instrument ID: GC-11 Agilent 6890

06-15-11 19:15 Received: Sample Weight: 31 g Extracted: 06-16-11 14:15 Final Volume: 1 mL Cleaned Up: 06-20-11 21:00 91 Percent Solids: 06-21-11 15:31 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	43
11104-28-2	Aroclor 1221	BRL		ug/Kg	43
11141-16-5	Aroclor 1232	BRL		ug/Kg	43
53469-21-9	Aroclor 1242	BRL		ug/Kg	43
12672-29-6	Aroclor 1248	BRL		ug/Kg	43
11097-69-1	Aroclor 1254	260	2C (250)*	ug/Kg	43
11096-82-5	Aroclor 1260	180	2C (100)*	ug/Kg	43
37324-23-5	Aroclor 1262 [†]	BRL		ug/Kg	43
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	43

QC Surrogate	Spiked	Measured	Recovery	QC Limits	
First	Tetrachloro-m -xylene	7	6	89 %	30 - 150 %
Column	Decachlorobiphenyl	7	8	113 %	30 - 150 %
Second	Tetrachloro-m -xylene	7	6	89 %	30 - 150 %
Column	Decachlorobiphenyl	7	9	119 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.



Field ID: 124594 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-18 QC Batch ID: PB-3757-X

Sampled: 06-13-11 08:30 Instrument ID: GC-11 Agilent 6890

06-15-11 19:15 Received: Sample Weight: 31 g Extracted: 06-16-11 14:15 Final Volume: 1 mL Cleaned Up: 06-20-11 21:00 Percent Solids: 85 06-21-11 15:55 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	46
11104-28-2	Aroclor 1221	BRL		ug/Kg	46
11141-16-5	Aroclor 1232	BRL		ug/Kg	46
53469-21-9	Aroclor 1242	BRL		ug/Kg	46
12672-29-6	Aroclor 1248	BRL		ug/Kg	46
11097-69-1	Aroclor 1254	85	1C (77)*	ug/Kg	46
11096-82-5	Aroclor 1260	63	2C (46)*	ug/Kg	46
37324-23-5	Aroclor 1262 [†]	BRL		ug/Kg	46
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	46

QC Surrogate Co	Spiked	Measured	Recovery	QC Limits	
First	Tetrachloro-m -xylene	8	6	72 %	30 - 150 %
Column	Decachlorobiphenyl	8	6	81 %	30 - 150 %
Second	Tetrachloro-m -xylene	8	5	70 %	30 - 150 %
Column	Decachlorobiphenyl	8	6	82 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 1C Concentration reported from first column.
- 2C Concentration reported from second column.



Field ID: 124595 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-19 QC Batch ID: PB-3757-X

Sampled: 06-13-11 08:45 Instrument ID: GC-11 Agilent 6890

06-15-11 19:15 Received: Sample Weight: 31 g Extracted: 06-16-11 14:15 Final Volume: 1 mL Cleaned Up: 06-20-11 21:00 Percent Solids: 93 06-21-11 16:18 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration	Units	Reporting Limit	
12674-11-2	Aroclor 1016	BRL		ug/Kg	42
11104-28-2	Aroclor 1221	BRL		ug/Kg	42
11141-16-5	Aroclor 1232	BRL		ug/Kg	42
53469-21-9	Aroclor 1242	BRL	ug/Kg	42	
12672-29-6	Aroclor 1248	BRL		ug/Kg	42
11097-69-1	Aroclor 1254	610 e	2C (580)*	ug/Kg	42
11096-82-5	Aroclor 1260	380 e	2C (210)*	ug/Kg	42
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	42	
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	42

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	7	4	54 %	30 - 150 %
Column	Decachlorobiphenyl	7	5	68 %	30 - 150 %
Second	Tetrachloro-m-xylene	7	4	55 %	30 - 150 %
Column	Decachlorobiphenyl	7	5	70 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.
- e Concentration exceeded calibration range for the analyte.



Field ID: 124595 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-19RA1 QC Batch ID: PB-3757-X

Sampled: 06-13-11 08:45 Instrument ID: GC-11 Agilent 6890

06-15-11 19:15 Received: Sample Weight: 31 g Extracted: 06-16-11 14:15 Final Volume: 1 mL Cleaned Up: 06-20-11 21:00 93 Percent Solids: 06-21-11 21:49 Analyzed: Dilution Factor: 5

Analyst: CRL

CAS Number	Analyte	Concentration	Units	Reporting Limit	
12674-11-2	Aroclor 1016	BRL		ug/Kg	210
11104-28-2	Aroclor 1221	BRL		ug/Kg	210
11141-16-5	Aroclor 1232	BRL		ug/Kg	210
53469-21-9	Aroclor 1242	BRL	ug/Kg	210	
12672-29-6	Aroclor 1248	BRL		ug/Kg	210
11097-69-1	Aroclor 1254	640	2C (640)*	ug/Kg	210
11096-82-5	Aroclor 1260	440	2C (240)*	ug/Kg	210
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	210	
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	210

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	7	4	53 %	30 - 150 %
Column	Decachlorobiphenyl	7	5	73 %	30 - 150 %
Second	Tetrachloro-m -xylene	7	4	57 %	30 - 150 %
Column	Decachlorobiphenyl	7	6	89 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 2C Concentration reported from second column.



Field ID: 124596 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-20 QC Batch ID: PB-3757-X

Sampled: 06-13-11 08:45 Instrument ID: GC-11 Agilent 6890

06-15-11 19:15 Received: Sample Weight: 30 g Extracted: 06-16-11 14:15 Final Volume: 1 mL Cleaned Up: 06-20-11 21:00 Percent Solids: 94 06-21-11 16:42 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration Notes		Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	42	
11104-28-2	Aroclor 1221	BRL		ug/Kg	42
11141-16-5	Aroclor 1232	BRL		ug/Kg	42
53469-21-9	Aroclor 1242	BRL	ug/Kg	42	
12672-29-6	Aroclor 1248	BRL	ug/Kg	42	
11097-69-1	Aroclor 1254	160	1C (140)*	ug/Kg	42
11096-82-5	Aroclor 1260	97	2C (48)*	ug/Kg	42
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	42	
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	42

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	7	5	75 %	30 - 150 %
Column	Decachlorobiphenyl	7	6	84 %	30 - 150 %
Second	Tetrachloro-m -xylene	7	5	77 %	30 - 150 %
Column	Decachlorobiphenyl	7	7	92 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 1C Concentration reported from first column.
- 2C Concentration reported from second column.



Field ID: 124597 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-21 QC Batch ID: PB-3757-X

Sampled: 06-13-11 08:50 Instrument ID: GC-11 Agilent 6890

06-15-11 19:15 Received: Sample Weight: 30 g Extracted: 06-16-11 14:15 Final Volume: 1 mL Cleaned Up: 06-20-11 21:00 93 Percent Solids: 06-21-11 17:05 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	43
11104-28-2	Aroclor 1221	BRL	ug/Kg	43
11141-16-5	Aroclor 1232	BRL	ug/Kg	43
53469-21-9	Aroclor 1242	BRL	ug/Kg	43
12672-29-6	Aroclor 1248	420 e 1C (340)*	ug/Kg	43
11097-69-1	Aroclor 1254	150 2C (120)*	ug/Kg	43
11096-82-5	Aroclor 1260	BRL	ug/Kg	43
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	43
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	43

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	7	6	87 %	30 - 150 %
Column	Decachlorobiphenyl	7	5	73 %	30 - 150 %
Second	Tetrachloro-m -xylene	7	6	90 %	30 - 150 %
Column	Decachlorobiphenyl	7	6	78 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 1C Concentration reported from first column.
- 2C Concentration reported from second column.
- e Indicates concentration exceeded calibration range for analyte.



Field ID: 124597 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-21RA1 QC Batch ID: PB-3757-X

Sampled: 06-13-11 08:50 Instrument ID: GC-11 Agilent 6890

06-15-11 19:15 Received: Sample Weight: 30 g Extracted: 06-16-11 14:15 Final Volume: 1 mL Cleaned Up: 06-20-11 21:00 93 Percent Solids: 06-22-11 23:59 Analyzed: Dilution Factor: 5

Analyst: CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	210
11104-28-2	Aroclor 1221	BRL	ug/Kg	210
11141-16-5	Aroclor 1232	BRL	ug/Kg	210
53469-21-9	Aroclor 1242	BRL	ug/Kg	210
12672-29-6	Aroclor 1248	510 1C (380)*	ug/Kg	210
11097-69-1	Aroclor 1254	BRL	ug/Kg	210
11096-82-5	Aroclor 1260	BRL	ug/Kg	210
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	210
11100-14-4	Aroclor 1268 [†]	BRI	ug/Kg	210

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	7	7	93 %	30 - 150 %
Column	Decachlorobiphenyl	7	6	89 %	30 - 150 %
Second	Tetrachloro-m -xylene	7	7	98 %	30 - 150 %
Column	Decachlorobiphenyl	7	6	88 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 1C Concentration reported from first column.



Field ID: 124598 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-22 QC Batch ID: PB-3757-X

Sampled: 06-13-11 08:55 Instrument ID: GC-11 Agilent 6890

06-15-11 19:15 Received: Sample Weight: 30 g Extracted: 06-16-11 14:15 Final Volume: 1 mL Cleaned Up: 06-20-11 21:00 Percent Solids: 89 06-21-11 17:29 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	44
11104-28-2	Aroclor 1221	BRL	ug/Kg	44
11141-16-5	Aroclor 1232	BRL	ug/Kg	44
53469-21-9	Aroclor 1242	BRL	ug/Kg	44
12672-29-6	Aroclor 1248	BRL	ug/Kg	44
11097-69-1	Aroclor 1254	73 1C (45)*	ug/Kg	44
11096-82-5	Aroclor 1260	BRL	ug/Kg	44
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	44
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	44

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	7	6	81 %	30 - 150 %
Column	Decachlorobiphenyl	7	5	70 %	30 - 150 %
Second	Tetrachloro-m-xylene	7	6	83 %	30 - 150 %
Column	Decachlorobiphenyl	7	5	70 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 1C Concentration reported from first column.



Field ID: 124599 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-23 QC Batch ID: PB-3757-X

Sampled: 06-13-11 08:57 Instrument ID: GC-11 Agilent 6890

06-15-11 19:15 Received: Sample Weight: 30 g Extracted: 06-16-11 14:15 Final Volume: 1 mL Cleaned Up: 06-20-11 21:00 Percent Solids: 92 06-21-11 17:53 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration	Units	Reporting Limit	
12674-11-2	Aroclor 1016	BRL	ug/Kg	43	
11104-28-2	Aroclor 1221	BRL		ug/Kg	43
11141-16-5	Aroclor 1232	BRL		ug/Kg	43
53469-21-9	Aroclor 1242	BRL	ug/Kg	43	
12672-29-6	Aroclor 1248	BRL	ug/Kg	43	
11097-69-1	Aroclor 1254	160	1C (130)*	ug/Kg	43
11096-82-5	Aroclor 1260	79	2C (47)*	ug/Kg	43
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	43	
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	43

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	7	6	80 %	30 - 150 %
Column	Decachlorobiphenyl	7	6	89 %	30 - 150 %
Second	Tetrachloro-m -xylene	7	6	79 %	30 - 150 %
Column	Decachlorobiphenyl	7	7	95 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 1C Concentration reported from first column.
- 2C Concentration reported from second column.



Field ID: 124600 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-24 QC Batch ID: PB-3757-X

Sampled: 06-13-11 08:59 Instrument ID: GC-11 Agilent 6890

06-15-11 19:15 Received: Sample Weight: 31 g Extracted: 06-16-11 14:15 Final Volume: 1 mL Cleaned Up: 06-20-11 21:00 91 Percent Solids: 06-21-11 18:16 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration	Concentration Notes				
12674-11-2	Aroclor 1016	BRL	BRL				
11104-28-2	Aroclor 1221	BRL	BRL				
11141-16-5	Aroclor 1232	BRL	BRL				
53469-21-9	Aroclor 1242	BRL	BRL				
12672-29-6	Aroclor 1248	BRL	BRL				
11097-69-1	Aroclor 1254	100	100 1C (92)*				
11096-82-5	Aroclor 1260	76	2C (45)*	ug/Kg	43		
37324-23-5	Aroclor 1262 [†]	BRL	BRL				
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	43		

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	7	7	91 %	30 - 150 %
Column	Decachlorobiphenyl	7	7	91 %	30 - 150 %
Second	Tetrachloro-m -xylene	7	6	88 %	30 - 150 %
Column	Decachlorobiphenyl	7	7	99 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 1C Concentration reported from first column.
- 2C Concentration reported from second column.



Field ID: 124601 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-25 QC Batch ID: PB-3757-X

Sampled: 06-13-11 09:06 Instrument ID: GC-11 Agilent 6890

06-15-11 19:15 Received: Sample Weight: 30 g Extracted: 06-16-11 14:15 Final Volume: 1 mL Cleaned Up: 06-20-11 21:00 Percent Solids: 89 06-21-11 18:40 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration Notes		Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	45	
11104-28-2	Aroclor 1221	BRL	ug/Kg	45	
11141-16-5	Aroclor 1232	BRL	ug/Kg	45	
53469-21-9	Aroclor 1242	BRL	ug/Kg	45	
12672-29-6	Aroclor 1248	BRL	ug/Kg	45	
11097-69-1	Aroclor 1254	350	ug/Kg	45	
11096-82-5	Aroclor 1260	300	ug/Kg	45	
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	45	
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	45

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	7	7	90 %	30 - 150 %
Column	Decachlorobiphenyl	7	8	102 %	30 - 150 %
Second	Tetrachloro-m-xylene	7	6	86 %	30 - 150 %
Column	Decachlorobiphenyl	7	8	103 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 2C Concentration reported from second column.



Field ID: 124602 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-26 QC Batch ID: PB-3757-X

Sampled: 06-13-11 09:08 Instrument ID: GC-11 Agilent 6890

06-15-11 19:15 Received: Sample Weight: 30 g Extracted: 06-16-11 14:15 Final Volume: 1 mL Cleaned Up: 06-20-11 21:00 Percent Solids: 90 06-21-11 19:04 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration Notes		Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	45	
11104-28-2	Aroclor 1221	BRL	ug/Kg	45	
11141-16-5	Aroclor 1232	BRL	ug/Kg	45	
53469-21-9	Aroclor 1242	BRL	ug/Kg	45	
12672-29-6	Aroclor 1248	BRL		ug/Kg	45
11097-69-1	Aroclor 1254	470	ug/Kg	45	
11096-82-5	Aroclor 1260	320	ug/Kg	45	
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	45	
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	45

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	7	7	88 %	30 - 150 %
Column	Decachlorobiphenyl	7	7	91 %	30 - 150 %
Second	Tetrachloro-m -xylene	7	6	86 %	30 - 150 %
Column	Decachlorobiphenyl	7	7	97 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 1C Concentration reported from first column.
- 2C Concentration reported from second column.



Field ID: 124603 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-27 QC Batch ID: PB-3757-X

Sampled: 06-13-11 09:22 Instrument ID: GC-11 Agilent 6890

06-15-11 19:15 Received: Sample Weight: 31 g Extracted: 06-16-11 14:15 Final Volume: 1 mL Cleaned Up: 06-20-11 21:00 Percent Solids: 94 06-21-11 20:38 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration	Units	Reporting Limit	
12674-11-2	Aroclor 1016	BRL	ug/Kg	42	
11104-28-2	Aroclor 1221	BRL	ug/Kg	42	
11141-16-5	Aroclor 1232	BRL	ug/Kg	42	
53469-21-9	Aroclor 1242	BRL	ug/Kg	42	
12672-29-6	Aroclor 1248	BRL		ug/Kg	42
11097-69-1	Aroclor 1254	310	ug/Kg	42	
11096-82-5	Aroclor 1260	180	ug/Kg	42	
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	42	
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	42

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	7	5	76 %	30 - 150 %
Column	Decachlorobiphenyl	7	6	90 %	30 - 150 %
Second	Tetrachloro-m -xylene	7	5	74 %	30 - 150 %
Column	Decachlorobiphenyl	7	6	87 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 2C Concentration reported from second column.



Field ID: 124604 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-28 QC Batch ID: PB-3757-X

Sampled: 06-13-11 09:24 Instrument ID: GC-11 Agilent 6890

06-15-11 19:15 Received: Sample Weight: 31 g Extracted: 06-16-11 14:15 Final Volume: 1 mL Cleaned Up: 06-20-11 21:00 Percent Solids: 88 06-21-11 21:02 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration	Units	Reporting Limit		
12674-11-2	Aroclor 1016	BRL		ug/Kg	44	
11104-28-2	Aroclor 1221	BRL		ug/Kg	44	
11141-16-5	Aroclor 1232	BRL	ug/Kg	44		
53469-21-9	Aroclor 1242	BRL	ug/Kg	44		
12672-29-6	Aroclor 1248	BRL		ug/Kg	44	
11097-69-1	Aroclor 1254	250	2C (250)*	ug/Kg	44	
11096-82-5	Aroclor 1260	170	170 2C (100)*			
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	44		
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	44	

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	7	5	73 %	30 - 150 %
Column	Decachlorobiphenyl	7	6	78 %	30 - 150 %
Second	Tetrachloro-m -xylene	7	5	73 %	30 - 150 %
Column	Decachlorobiphenyl	7	6	87 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 2C Concentration reported from second column.



Field ID: 124605 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-29 QC Batch ID: PB-3757-X

Sampled: 06-13-11 09:49 Instrument ID: GC-11 Agilent 6890

Received: 06-15-11 19:15 Sample Weight: 30 g Extracted: 06-16-11 14:15 Final Volume: 1 mL Cleaned Up: 06-20-11 21:00 Percent Solids: 80 06-21-11 21:25 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration	Units	Reporting Limit	
12674-11-2	Aroclor 1016	BRL		ug/Kg	49
11104-28-2	Aroclor 1221	BRL		ug/Kg	49
11141-16-5	Aroclor 1232	BRL		ug/Kg	49
53469-21-9	Aroclor 1242	BRL	ug/Kg	49	
12672-29-6	Aroclor 1248	BRL		ug/Kg	49
11097-69-1	Aroclor 1254	2,500 e	1C (2500)*	ug/Kg	49
11096-82-5	Aroclor 1260	1,800 e	ug/Kg	49	
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	49	
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	49

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	8	5	56 %	30 - 150 %
Column	Decachlorobiphenyl	8	5	57 %	30 - 150 %
Second	Tetrachloro-m -xylene	8	5	56 %	30 - 150 %
Column	Decachlorobiphenyl	8	6	72 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 1C Concentration reported from first column.
- 2C Concentration reported from second column.
- e Indicates concentration exceeded calibration range for analyte.



Field ID: 124605 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-29RA1 QC Batch ID: PB-3757-X

Sampled: 06-13-11 09:49 Instrument ID: GC-11 Agilent 6890

06-15-11 19:15 Received: Sample Weight: 30 g Extracted: 06-16-11 14:15 Final Volume: 1 mL Cleaned Up: 06-20-11 21:00 Percent Solids: 80 06-23-11 00:23 Analyzed: Dilution Factor: 10

Analyst: CRL

CAS Number	Analyte	Concentration	Units	Reporting Limit	
12674-11-2	Aroclor 1016	BRL		ug/Kg	490
11104-28-2	Aroclor 1221	BRL		ug/Kg	490
11141-16-5	Aroclor 1232	BRL		ug/Kg	490
53469-21-9	Aroclor 1242	BRL	ug/Kg	490	
12672-29-6	Aroclor 1248	BRL		ug/Kg	490
11097-69-1	Aroclor 1254	3,200	2C (2600)*	ug/Kg	490
11096-82-5	Aroclor 1260	1,500	ug/Kg	490	
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	490	
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	490

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	8	5	61 %	30 - 150 %
Column	Decachlorobiphenyl	8	6	78 %	30 - 150 %
Second	Tetrachloro-m -xylene	8	5	59 %	30 - 150 %
Column	Decachlorobiphenyl	8	6	76 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.



Field ID: 124606 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-30 QC Batch ID: PB-3758-X

Sampled: 06-13-11 09:58 Instrument ID: GC-11 Agilent 6890

06-15-11 19:15 Received: Sample Weight: 30 g Extracted: 06-16-11 17:30 Final Volume: 1 mL Cleaned Up: 06-21-11 23:00 86 Percent Solids: 06-22-11 04:10 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration	Units	Reporting Limit	
12674-11-2	Aroclor 1016	BRL		ug/Kg	47
11104-28-2	Aroclor 1221	BRL		ug/Kg	47
11141-16-5	Aroclor 1232	BRL		ug/Kg	47
53469-21-9	Aroclor 1242	BRL	ug/Kg	47	
12672-29-6	Aroclor 1248	BRL		ug/Kg	47
11097-69-1	Aroclor 1254	610 e	2C (530)*	ug/Kg	47
11096-82-5	Aroclor 1260	270	ug/Kg	47	
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	47	
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	47

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	8	5	70 %	30 - 150 %
Column	Decachlorobiphenyl	8	5	69 %	30 - 150 %
Second	Tetrachloro-m -xylene	8	5	69 %	30 - 150 %
Column	Decachlorobiphenyl	8	7	85 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.
- e Indicates concentration exceeds calibration range for analyte.



Field ID: 124606 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-30RA1 QC Batch ID: PB-3758-X

Sampled: 06-13-11 09:58 Instrument ID: GC-11 Agilent 6890

06-15-11 19:15 Received: Sample Weight: 30 g Extracted: 06-16-11 17:30 Final Volume: 1 mL Cleaned Up: 06-21-11 23:00 86 Percent Solids: 06-23-11 00:46 Analyzed: Dilution Factor: 5

Analyst: CRL

CAS Number	Analyte	Concentration	Units	Reporting Limit		
12674-11-2	Aroclor 1016	BRL	ug/Kg	230		
11104-28-2	Aroclor 1221	BRL		ug/Kg	230	
11141-16-5	Aroclor 1232	BRL	ug/Kg	230		
53469-21-9	Aroclor 1242	BRL	ug/Kg	230		
12672-29-6	Aroclor 1248	BRL		ug/Kg	230	
11097-69-1	Aroclor 1254	670	2C (530)*	ug/Kg	230	
11096-82-5	Aroclor 1260	BRL	BRL			
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	230		
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	230	

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	8	6	75 %	30 - 150 %
Column	Decachlorobiphenyl	8	5	63 %	30 - 150 %
Second	Tetrachloro-m -xylene	8	6	79 %	30 - 150 %
Column	Decachlorobiphenyl	8	5	65 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.



Field ID: 124607 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-31 QC Batch ID: PB-3758-X

Sampled: 06-13-11 10:00 Instrument ID: GC-11 Agilent 6890

06-15-11 19:15 Received: Sample Weight: 30 g Extracted: 06-16-11 17:30 Final Volume: 1 mL Cleaned Up: 06-21-11 23:00 86 Percent Solids: 06-22-11 04:34 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration	Units	Reporting Limit	
12674-11-2	Aroclor 1016	BRL	ug/Kg	46	
11104-28-2	Aroclor 1221	BRL		ug/Kg	46
11141-16-5	Aroclor 1232	BRL	ug/Kg	46	
53469-21-9	Aroclor 1242	BRL	ug/Kg	46	
12672-29-6	Aroclor 1248	380	1C (220)*	ug/Kg	46
11097-69-1	Aroclor 1254	350	1C (310)*	ug/Kg	46
11096-82-5	Aroclor 1260	BRL	ug/Kg	46	
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	46	
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	46

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	8	6	72 %	30 - 150 %
Column	Decachlorobiphenyl	8	5	63 %	30 - 150 %
Second	Tetrachloro-m -xylene	8	6	74 %	30 - 150 %
Column	Decachlorobiphenyl	8	6	82 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 1C Concentration reported from first column.



Field ID: 124608 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-32 QC Batch ID: PB-3758-X

Sampled: 06-13-11 10:03 Instrument ID: GC-11 Agilent 6890

06-15-11 19:15 Received: Sample Weight: 30 g Extracted: 06-16-11 17:30 Final Volume: 1 mL Cleaned Up: 06-21-11 23:00 Percent Solids: 94 06-22-11 04:57 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	43
11104-28-2	Aroclor 1221	BRL	ug/Kg	43
11141-16-5	Aroclor 1232	BRL	ug/Kg	43
53469-21-9	Aroclor 1242	BRL	ug/Kg	43
12672-29-6	Aroclor 1248	390 1C (310)*	ug/Kg	43
11097-69-1	Aroclor 1254	460 e 1C (390)*	ug/Kg	43
11096-82-5	Aroclor 1260	BRL	ug/Kg	43
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	43
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	43

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	7	6	79 %	30 - 150 %
Column	Decachlorobiphenyl	7	5	76 %	30 - 150 %
Second	Tetrachloro-m -xylene	7	6	83 %	30 - 150 %
Column	Decachlorobiphenyl	7	7	93 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 1C Concentration reported from first column.
- e Indicates concentration exceeds calibration range for analyte.



Field ID: 124608 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-32RA1 QC Batch ID: PB-3758-X

Sampled: 06-13-11 10:03 Instrument ID: GC-11 Agilent 6890

06-15-11 19:15 Received: Sample Weight: 30 g Extracted: 06-16-11 17:30 Final Volume: 1 mL Cleaned Up: 06-21-11 23:00 Percent Solids: 94 06-23-11 01:34 Analyzed: Dilution Factor: 5

Analyst: CRL

CAS Number	Analyte	Concentration	Units	Reporting Limit			
12674-11-2	Aroclor 1016	BRL	BRL				
11104-28-2	Aroclor 1221	BRL		ug/Kg	210		
11141-16-5	Aroclor 1232	BRL	ug/Kg	210			
53469-21-9	Aroclor 1242	BRL	ug/Kg	210			
12672-29-6	Aroclor 1248	630	1C (330)*	ug/Kg	210		
11097-69-1	Aroclor 1254	440	2C (420)*	ug/Kg	210		
11096-82-5	Aroclor 1260	BRL		ug/Kg	210		
37324-23-5	Aroclor 1262 [†]	BRL		ug/Kg	210		
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	210		

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	7	6	83 %	30 - 150 %
Column	Decachlorobiphenyl	7	6	85 %	30 - 150 %
Second	Tetrachloro-m -xylene	7	6	87 %	30 - 150 %
Column	Decachlorobiphenyl	7	6	89 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 1C Concentration reported from first column.
- 2C Concentration reported from second column.



Field ID: 124609 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-33 QC Batch ID: PB-3758-X

Sampled: 06-13-11 10:06 Instrument ID: GC-11 Agilent 6890

06-15-11 19:15 Received: Sample Weight: 30 g Extracted: 06-16-11 17:30 Final Volume: 1 mL Cleaned Up: 06-21-11 23:00 Percent Solids: 94 06-22-11 05:21 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration	Units	Reporting Limit	
12674-11-2	Aroclor 1016	BRL		ug/Kg	42
11104-28-2	Aroclor 1221	BRL		ug/Kg	42
11141-16-5	Aroclor 1232	BRL	ug/Kg	42	
53469-21-9	Aroclor 1242	BRL	ug/Kg	42	
12672-29-6	Aroclor 1248	180	1C (130)*	ug/Kg	42
11097-69-1	Aroclor 1254	240	1C (200)*	ug/Kg	42
11096-82-5	Aroclor 1260	BRL	ug/Kg	42	
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	42	
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	42

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	7	4	63 %	30 - 150 %
Column	Decachlorobiphenyl	7	5	69 %	30 - 150 %
Second	Tetrachloro-m -xylene	7	5	64 %	30 - 150 %
Column	Decachlorobiphenyl	7	6	84 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 1C Concentration reported from first column.



Field ID: 124610 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-34 QC Batch ID: PB-3758-X

Sampled: 06-13-11 10:08 Instrument ID: GC-11 Agilent 6890

Received: 06-15-11 19:15 Sample Weight: 30 g Extracted: 06-16-11 17:30 Final Volume: 1 mL Cleaned Up: 06-21-11 23:00 93 Percent Solids: 06-22-11 06:55 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	42
11104-28-2	Aroclor 1221	BRL	ug/Kg	42
11141-16-5	Aroclor 1232	BRL	ug/Kg	42
53469-21-9	Aroclor 1242	BRL	ug/Kg	42
12672-29-6	Aroclor 1248	660 e 1C (480)*	ug/Kg	42
11097-69-1	Aroclor 1254	510 e 2C (500)*	ug/Kg	42
11096-82-5	Aroclor 1260	BRL	ug/Kg	42
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	42
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	42

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	7	5	74 %	30 - 150 %
Column	Decachlorobiphenyl	7	5	73 %	30 - 150 %
Second	Tetrachloro-m -xylene	7	5	74 %	30 - 150 %
Column	Decachlorobiphenyl	7	6	78 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 1C Concentration reported from first column.
- 2C Concentration reported from second column.
- e Indicates concentration exceeds calibration range for analyte.



Field ID: 124610 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-34RA1 QC Batch ID: PB-3758-X

Sampled: 06-13-11 10:08 Instrument ID: GC-11 Agilent 6890

06-15-11 19:15 Received: Sample Weight: 30 g Extracted: 06-16-11 17:30 Final Volume: 1 mL Cleaned Up: 06-21-11 23:00 93 Percent Solids: 06-23-11 01:57 Analyzed: Dilution Factor: 5

Analyst: CRL

CAS Number	Analyte	Concentration	Units	Reporting Limit	
12674-11-2	Aroclor 1016	BRL	ug/Kg	210	
11104-28-2	Aroclor 1221	BRL		ug/Kg	210
11141-16-5	Aroclor 1232	BRL		ug/Kg	210
53469-21-9	Aroclor 1242	BRL	ug/Kg	210	
12672-29-6	Aroclor 1248	700	1C (530)*	ug/Kg	210
11097-69-1	Aroclor 1254	590	2C (520)*	ug/Kg	210
11096-82-5	Aroclor 1260	BRL	ug/Kg	210	
37324-23-5	Aroclor 1262 [†]	BRL		ug/Kg	210
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	210

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	7	5	75 %	30 - 150 %
Column	Decachlorobiphenyl	7	6	78 %	30 - 150 %
Second	Tetrachloro-m -xylene	7	6	77 %	30 - 150 %
Column	Decachlorobiphenyl	7	6	83 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 1C Concentration reported from first column.
- 2C Concentration reported from second column.



Field ID: 124611 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-35 QC Batch ID: PB-3762-X

Sampled: 06-13-11 10:23 Instrument ID: GC-13 Agilent 6890

Received: 06-15-11 19:15 Sample Weight: 30 g Extracted: 06-23-11 20:30 Final Volume: 1 mL Cleaned Up: 06-25-11 20:00 Percent Solids: 94 06-28-11 00:51 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	42
11104-28-2	Aroclor 1221	BRL	ug/Kg	42
11141-16-5	Aroclor 1232	BRL	ug/Kg	42
53469-21-9	Aroclor 1242	BRL	ug/Kg	42
12672-29-6	Aroclor 1248	900 e 2C (730)*	ug/Kg	42
11097-69-1	Aroclor 1254	470 e 1C (380)*	ug/Kg	42
11096-82-5	Aroclor 1260	BRL	ug/Kg	42
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	42
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	42

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	7	7	100 %	30 - 150 %
Column	Decachlorobiphenyl	7	7	105 %	30 - 150 %
Second	Tetrachloro-m -xylene	7	7	105 %	30 - 150 %
Column	Decachlorobiphenyl	7	8	108 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 1C Concentration reported from first column.
- 2C Concentration reported from second column.
- e Indicates concentration exceeds calibration range for analyte.



Field ID: 124611 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-35RA1 QC Batch ID: PB-3762-X

Sampled: 06-13-11 10:23 Instrument ID: GC-13 Agilent 6890

06-15-11 19:15 Received: Sample Weight: 30 g 06-23-11 20:30 Extracted: Final Volume: 1 mL Cleaned Up: 06-25-11 20:00 Percent Solids: 94 06-28-11 11:15 Analyzed: Dilution Factor: 5

Analyst: CRL

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	210
11104-28-2	Aroclor 1221	BRL		ug/Kg	210
11141-16-5	Aroclor 1232	BRL		ug/Kg	210
53469-21-9	Aroclor 1242	BRL		ug/Kg	210
12672-29-6	Aroclor 1248	930	2C (730)*	ug/Kg	210
11097-69-1	Aroclor 1254	380	2C (360)*	ug/Kg	210
11096-82-5	Aroclor 1260	BRL		ug/Kg	210
37324-23-5	Aroclor 1262 [†]	BRL		ug/Kg	210
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	210

QC Surrogate	QC Surrogate Compound			Recovery	QC Limits
First	Tetrachloro-m -xylene	7	7	95 %	30 - 150 %
Column	Decachlorobiphenyl	7	7	100 %	30 - 150 %
Second	Tetrachloro-m -xylene	7	7	104 %	30 - 150 %
Column	Decachlorobiphenyl	7	7	106 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.



Field ID: 124612 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-36 QC Batch ID: PB-3762-X

Sampled: 06-13-11 10:23 Instrument ID: GC-13 Agilent 6890

Received: 06-15-11 19:15 Sample Weight: 31 g Extracted: 06-23-11 20:30 Final Volume: 1 mL Cleaned Up: 06-25-11 20:00 Percent Solids: 94 06-28-11 01:15 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	41
11104-28-2	Aroclor 1221	BRL	ug/Kg	41
11141-16-5	Aroclor 1232	BRL	ug/Kg	41
53469-21-9	Aroclor 1242	BRL	ug/Kg	41
12672-29-6	Aroclor 1248	900 e 2C (740)*	ug/Kg	41
11097-69-1	Aroclor 1254	640 e 1C (390)*	ug/Kg	41
11096-82-5	Aroclor 1260	BRL	ug/Kg	41
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	41
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	41

QC Surrogate Co	QC Surrogate Compound			Recovery	QC Limits
First	Tetrachloro-m -xylene	7	7	108 %	30 - 150 %
Column	Decachlorobiphenyl	7	7	107 %	30 - 150 %
Second	Tetrachloro-m -xylene	7	8	114 %	30 - 150 %
Column	Decachlorobiphenyl	7	7	107 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 1C Concentration reported from first column.
- 2C Concentration reported from second column.
- e Indicates concentration exceeds calibration range for analyte.



Field ID: 124612 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-36RA1 QC Batch ID: PB-3762-X

Sampled: 06-13-11 10:23 Instrument ID: GC-13 Agilent 6890

06-15-11 19:15 Received: Sample Weight: 31 g Extracted: 06-23-11 20:30 Final Volume: 1 mL Cleaned Up: 06-25-11 20:00 Percent Solids: 94 06-28-11 11:39 2 Analyzed: Dilution Factor:

Analyst: CRL

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	83
11104-28-2	Aroclor 1221	BRL		ug/Kg	83
11141-16-5	Aroclor 1232	BRL		ug/Kg	83
53469-21-9	Aroclor 1242	BRL		ug/Kg	83
12672-29-6	Aroclor 1248	800	2C (750)*	ug/Kg	83
11097-69-1	Aroclor 1254	610	1C (390)*	ug/Kg	83
11096-82-5	Aroclor 1260	BRL		ug/Kg	83
37324-23-5	Aroclor 1262 [†]	BRL		ug/Kg	83
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	83

QC Surrogate	QC Surrogate Compound			Recovery	QC Limits
First	Tetrachloro-m -xylene	7	7	107 %	30 - 150 %
Column	Decachlorobiphenyl	7	8	109 %	30 - 150 %
Second	Tetrachloro-m -xylene	7	8	114 %	30 - 150 %
Column	Decachlorobiphenyl	7	8	111 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 1C Concentration reported from first column.
- 2C Concentration reported from second column.



Matrix Spike and Matrix Spike Duplicate EPA Method 8082

			Parent Sample	Matrix Spike	Spike Duplicate
Field ID:	124611	Laboratory ID:	142678-35	142678-37	142678-38
Project:	EH&E/17228	Sampled:	06-13-11 10:23	06-13-11 10:23	06-13-11 10:23
Client:	Environmental Health & Engineering, Inc.	Received:	06-15-11 19:15	06-15-11 19:15	06-15-11 19:15
Matrix:	Soil	Extracted:	06-23-11 20:30	06-23-11 20:30	06-23-11 20:30
Container:	120 mL Amber Glass	Cleaned Up:	06-25-11 20:00	06-25-11 20:00	06-25-11 20:00
Preservation:	Cool	Analyzed:	06-28-11 11:15	06-28-11 12:03	06-28-11 12:27
		Analyst:	CRL	CRL	CRL
		QC Batch ID:	PB-3762-X	PB-3762-X	PB-3762-X
		Instrument ID:	GC-11 Agilent 6890	GC-11 Agilent 689	0 GC-11 Agilent 6890
		Sample Weight:	30g	30g	30g
		Final Volume:	1 mL	1 mL	1 mL
		Percent Solids:	94	94	94
		Dilution Factor:	5	5	5

CAS Number	Analyte	Unspiked	MS	MS Me	asured	MS Re	covery	MSD	MSD M	easured	MSD Re	ecovery	RF	סי	QC Lim	iits
		Sample	Spiked	1st Col	2nd Col	1st Col	2nd Col	Spiked	1st Col	2nd Col	1st Col	2nd Col	1st Col	2nd Col	Spike	RPD
		(ug/Kg)	(ug/Kg)	(ug/Kg)	(ug/Kg)			(ug/Kg)	(ug/Kg)	(ug/Kg)						
12674-11-2	Aroclor 1016	BRL	170	550	570	318 % m	329 % m	180	500	520	286 % m	294 % m	10 %	10 %	40 - 140%	50 %
11096-82-5	Aroclor 1260	BRL	170	310	410	177 % m	233 % m	180	280	380	159 % m	216 % m	10 %	7 %	40 - 140%	50 %

QC Surrogate Compound		Surrogate Recovery											QC Limits
Tetrachloro-m-xylene	95%	7	7	8	106%	113%	7	7	7	100%	104%		30 - 150 %
Decachlorobiphenyl	100%	7	7	8	104%	114%	7	7	7	95%	101%		30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3546. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on a dry weight basis.

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

m Recovery outside recommended limits due to sample matrix interference.



Field ID: 124614 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-39 QC Batch ID: PB-3762-X

Sampled: 06-13-11 10:24 Instrument ID: GC-13 Agilent 6890

Received: 06-15-11 19:15 Sample Weight: 30 g Extracted: 06-23-11 20:30 Final Volume: 1 mL Cleaned Up: 06-25-11 20:00 95 Percent Solids: 06-28-11 03:38 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration	Units	Reporting Limit				
12674-11-2	Aroclor 1016	BRL	BRL					
11104-28-2	Aroclor 1221	BRL	BRL					
11141-16-5	Aroclor 1232	BRL	ug/Kg	42				
53469-21-9	Aroclor 1242	BRL	BRL					
12672-29-6	Aroclor 1248	1,300	e 2C (850)*	ug/Kg	42			
11097-69-1	Aroclor 1254	640	e 1C (460)*	ug/Kg	42			
11096-82-5	Aroclor 1260	BRL		ug/Kg	42			
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	42				
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	42			

QC Surrogate	Compound	Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	7	7	103 %	30 - 150 %
Column	Decachlorobiphenyl	7	7	105 %	30 - 150 %
Second	Tetrachloro-m -xylene	7	8	110 %	30 - 150 %
Column	Decachlorobiphenyl	7	7	107 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 1C Concentration reported from first column.
- 2C Concentration reported from second column.
- e Indicates concentration exceeds calibration range for analyte.



Field ID: 124614 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-39RA1 QC Batch ID: PB-3762-X

Sampled: 06-13-11 10:24 Instrument ID: GC-13 Agilent 6890

06-15-11 19:15 Received: Sample Weight: 30 g Extracted: 06-23-11 20:30 Final Volume: 1 mL Cleaned Up: 06-25-11 20:00 95 Percent Solids: 06-28-11 12:51 Analyzed: Dilution Factor: 5

Analyst: CRL

CAS Number	Analyte	Concentration	Units	Reporting Limit	
12674-11-2	Aroclor 1016	BRL		ug/Kg	210
11104-28-2	Aroclor 1221	BRL		ug/Kg	210
11141-16-5	Aroclor 1232	BRL		ug/Kg	210
53469-21-9	Aroclor 1242	BRL		ug/Kg	210
12672-29-6	Aroclor 1248	1,200	2C (770)*	ug/Kg	210
11097-69-1	Aroclor 1254	620	1C (460)*	ug/Kg	210
11096-82-5	Aroclor 1260	BRL		ug/Kg	210
37324-23-5	Aroclor 1262 [†]	BRL		ug/Kg	210
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	210

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	7	7	102 %	30 - 150 %
Column	Decachlorobiphenyl	7	7	101 %	30 - 150 %
Second	Tetrachloro-m -xylene	7	8	109 %	30 - 150 %
Column	Decachlorobiphenyl	7	7	107 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 1C Concentration reported from first column.
- 2C Concentration reported from second column.



Field ID: 124615 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-40 QC Batch ID: PB-3758-X

Sampled: 06-13-11 10:24 Instrument ID: GC-11 Agilent 6890

Received: 06-15-11 19:15 Sample Weight: 31 g Extracted: 06-16-11 17:30 Final Volume: 1 mL Cleaned Up: 06-21-11 23:00 96 Percent Solids: 06-22-11 07:42 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	41
11104-28-2	Aroclor 1221	BRL	ug/Kg	41
11141-16-5	Aroclor 1232	BRL	ug/Kg	41
53469-21-9	Aroclor 1242	BRL	ug/Kg	41
12672-29-6	Aroclor 1248	670 e 2C (430)*	ug/Kg	41
11097-69-1	Aroclor 1254	460 2C (430)*	ug/Kg	41
11096-82-5	Aroclor 1260	BRL	ug/Kg	41
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	41
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	41

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	7	6	87 %	30 - 150 %
Column	Decachlorobiphenyl	7	5	76 %	30 - 150 %
Second	Tetrachloro-m -xylene	7	6	91 %	30 - 150 %
Column	Decachlorobiphenyl	7	6	81 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.
- e Indicates concentration exceeds calibration range for analyte.



Field ID: 124615 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-40RA1 QC Batch ID: PB-3758-X

Sampled: 06-13-11 10:24 Instrument ID: GC-11 Agilent 6890

06-15-11 19:15 Received: Sample Weight: 31 g Extracted: 06-16-11 17:30 Final Volume: 1 mL Cleaned Up: 06-21-11 23:00 96 Percent Solids: 06-23-11 02:21 Analyzed: Dilution Factor: 5

Analyst: CRL

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	210
11104-28-2	Aroclor 1221	BRL		ug/Kg	210
11141-16-5	Aroclor 1232	BRL		ug/Kg	210
53469-21-9	Aroclor 1242	BRL		ug/Kg	210
12672-29-6	Aroclor 1248	620	2C (580)*	ug/Kg	210
11097-69-1	Aroclor 1254	520	2C (460)*	ug/Kg	210
11096-82-5	Aroclor 1260	BRL		ug/Kg	210
37324-23-5	Aroclor 1262 [†]	BRL		ug/Kg	210
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	210

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	7	6	90 %	30 - 150 %
Column	Decachlorobiphenyl	7	6	85 %	30 - 150 %
Second	Tetrachloro-m -xylene	7	7	96 %	30 - 150 %
Column	Decachlorobiphenyl	7	7	96 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 2C Concentration reported from second column.



Matrix Spike and Matrix Spike Duplicate EPA Method 8082

			Parent Sample	Matrix Spike	Spike Duplicate
Field ID:	124614	Laboratory ID:	142678-39	142678-41	142678-42
Project:	EH&E/17228	Sampled:	06-13-11 10:24	06-13-11 10:24	06-13-11 10:24
Client:	Environmental Health & Engineering, Inc.	Received:	06-15-11 19:15	06-15-11 19:15	06-15-11 19:15
Matrix:	Soil	Extracted:	06-23-11 20:30	06-23-11 20:30	06-23-11 20:30
Container:	120 mL Amber Glass	Cleaned Up:	06-25-11 20:00	06-25-11 20:00	06-25-11 20:00
Preservation:	Cool	Analyzed:	06-28-11 12:51	06-28-11 14:02	06-28-11 14:26
		Analyst:	CRL	CRL	CRL
		QC Batch ID:	PB-3762-X	PB-3762-X	PB-3762-X
		Instrument ID:	GC-11 Agilent 6890	GC-11 Agilent 689	0 GC-11 Agilent 6890
		Sample Weight:	30g	30g	30g
		Final Volume:	1 mL	1 mL	1 mL
		Percent Solids:	95	95	95
		Dilution Factor:	5	5	5

CAS Number	Analyte	Unspiked	MS	MS Me	asured	MS Re	covery	MSD	MSD M	easured	MSD R	ecovery	RI	o D	QC Lim	nits
		Sample	Spiked	1st Col	2nd Col	1st Col	2nd Col	Spiked	1st Col	2nd Col	1st Col	2nd Col	1st Col	2nd Col	Spike	RPD
		(ug/Kg)	(ug/Kg)	(ug/Kg)	(ug/Kg)			(ug/Kg)	(ug/Kg)	(ug/Kg)						
12674-11-2	Aroclor 1016	BRL	170	540	520	310 % m	300 % m	170	520	500	301 % m	288 % m	3 %	4 %	40 - 140%	50 %
11096-82-5	Aroclor 1260	BRL	170	300	410	176 % m	240 % m	170	300	420	173 % m	242 % m	2 %	1 %	40 - 140%	50 %

QC Surrogate Compound	Surrogate Recovery									QC Limits			
Tetrachloro-m-xylene	102%	7	7	7	103%	104%	7	7	7	100%	104%		30 - 150 %
Decachlorobiphenyl	101%	7	7	7	98%	102%	7	7	7	98%	101%		30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3546. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on a dry weight basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

m Recovery outside recommended limits due to sample matrix interference.



Field ID: 124617 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-43 QC Batch ID: PB-3762-X

Sampled: 06-13-11 10:28 Instrument ID: GC-13 Agilent 6890

06-15-11 19:15 Received: Sample Weight: 31 g Extracted: 06-23-11 20:30 Final Volume: 1 mL Cleaned Up: 06-25-11 20:00 97 Percent Solids: 06-28-11 04:49 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration	Units	Reporting Limit	
12674-11-2	Aroclor 1016	BRL	ug/Kg	41	
11104-28-2	Aroclor 1221	BRL		ug/Kg	41
11141-16-5	Aroclor 1232	BRL		ug/Kg	41
53469-21-9	Aroclor 1242	BRL	ug/Kg	41	
12672-29-6	Aroclor 1248	430	1C (420)*	ug/Kg	41
11097-69-1	Aroclor 1254	110	1C (98)*	ug/Kg	41
11096-82-5	Aroclor 1260	BRL		ug/Kg	41
37324-23-5	Aroclor 1262 [†]	BRL		ug/Kg	41
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	41

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	7	7	96 %	30 - 150 %
Column	Decachlorobiphenyl	7	7	101 %	30 - 150 %
Second	Tetrachloro-m -xylene	7	7	103 %	30 - 150 %
Column	Decachlorobiphenyl	7	7	105 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 1C Concentration reported from first column.



Field ID: 124618 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-44 QC Batch ID: PB-3758-X

Sampled: 06-13-11 10:45 Instrument ID: GC-11 Agilent 6890

06-15-11 19:15 Received: Sample Weight: 30 g Extracted: 06-16-11 17:30 Final Volume: 1 mL Cleaned Up: 06-21-11 23:00 Percent Solids: 94 06-22-11 08:06 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration N	otes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	42
11104-28-2	Aroclor 1221	BRL		ug/Kg	42
11141-16-5	Aroclor 1232	BRL		ug/Kg	42
53469-21-9	Aroclor 1242	BRL	ug/Kg	42	
12672-29-6	Aroclor 1248	BRL		ug/Kg	42
11097-69-1	Aroclor 1254	420 10	(370)*	ug/Kg	42
11096-82-5	Aroclor 1260	BRL		ug/Kg	42
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	42	
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	42

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	7	6	85 %	30 - 150 %
Column	Decachlorobiphenyl	7	5	69 %	30 - 150 %
Second	Tetrachloro-m -xylene	7	6	90 %	30 - 150 %
Column	Decachlorobiphenyl	7	6	79 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 1C Concentration reported from first column.



Matrix Spike and Matrix Spike Duplicate EPA Method 8082

			Parent Sample	Matrix Spike	Spike Duplicate
Field ID:	124617	Laboratory ID:	142678-43	142678-45	142678-46
Project:	EH&E/17228	Sampled:	06-13-11 10:28	06-13-11 10:28	06-13-11 10:28
Client:	Environmental Health & Engineering, Inc.	Received:	06-15-11 19:15	06-15-11 19:15	06-15-11 19:15
Matrix:	Soil	Extracted:	06-23-11 20:30	06-23-11 20:30	06-23-11 20:30
Container:	120 mL Amber Glass	Cleaned Up:	06-25-11 20:00	06-25-11 20:00	06-25-11 20:00
Preservation:	Cool	Analyzed:	06-28-11 04:49	06-28-11 14:50	06-28-11 15:14
		Analyst:	CRL	CRL	CRL
		QC Batch ID:	PB-3762-X	PB-3762-X	PB-3762-X
		Instrument ID:	GC-11 Agilent 6890	GC-11 Agilent 689	0 GC-11 Agilent 6890
		Sample Weight:	31g	31g	31g
		Final Volume:	1 mL	1 mL	1 mL
		Percent Solids:	97	97	95
		Dilution Factor:	1	1	1

CAS Number	Analyte	Unspiked	MS	MS Me	asured	MS Re	covery	MSD	MSD M	easured	MSD R	ecovery	RI	o D	QC Lim	iits
		Sample	Spiked	1st Col	2nd Col	1st Col	2nd Col	Spiked	1st Col	2nd Col	1st Col	2nd Col	1st Col	2nd Col	Spike	RPD
		(ug/Kg)	(ug/Kg)	(ug/Kg)	(ug/Kg)			(ug/Kg)	(ug/Kg)	(ug/Kg)						
12674-11-2	Aroclor 1016	BRL	170	650	770	381 % m	447 % m	170	590	660	348 % m	389 % m	10 %	14 %	40 - 140%	50 %
11096-82-5	Aroclor 1260	BRL	170	370	420	217 % m	245 % m	170	340	360	200 % m	212 % m	9 %	15 %	40 - 140%	50 %

QC Surrogate Compound		Surrogate Recovery									QC Limits		
Tetrachloro-m-xylene	96%	7	9	9	129%	130%	7	7	7	107%	108%		30 - 150 %
Decachlorobiphenyl	101%	7	8	8	120%	124%	7	7	8	106%	111%		30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3546. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on a dry weight basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

m Recovery outside recommended limits due to sample matrix interference.



Field ID: 124620 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-47 QC Batch ID: PB-3758-X

Sampled: 06-13-11 10:45 Instrument ID: GC-11 Agilent 6890

06-15-11 19:15 Received: Sample Weight: 30 g Extracted: 06-16-11 17:30 Final Volume: 1 mL Cleaned Up: 06-21-11 23:00 Percent Solids: 94 06-22-11 08:30 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration Not	es	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	42
11104-28-2	Aroclor 1221	BRL		ug/Kg	42
11141-16-5	Aroclor 1232	BRL		ug/Kg	42
53469-21-9	Aroclor 1242	BRL		ug/Kg	42
12672-29-6	Aroclor 1248	BRL		ug/Kg	42
11097-69-1	Aroclor 1254	450 1C	(330)*	ug/Kg	42
11096-82-5	Aroclor 1260	BRL		ug/Kg	42
37324-23-5	Aroclor 1262 [†]	BRL		ug/Kg	42
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	42

QC Surrogate C	QC Surrogate Compound		Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	7	6	79 %	30 - 150 %
Column	Decachlorobiphenyl	7	5	64 %	30 - 150 %
Second	Tetrachloro-m -xylene	7	6	81 %	30 - 150 %
Column	Decachlorobiphenyl	7	5	66 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 1C Concentration reported from first column.



Field ID: 124621 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-48 QC Batch ID: PB-3758-X

Sampled: 06-13-11 10:48 Instrument ID: GC-11 Agilent 6890

06-15-11 19:15 Received: Sample Weight: 31 g Extracted: 06-16-11 17:30 Final Volume: 1 mL Cleaned Up: 06-21-11 23:00 95 Percent Solids: 06-22-11 08:53 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration Note	s Un	its Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/l	Kg 41
11104-28-2	Aroclor 1221	BRL	ug/l	Kg 41
11141-16-5	Aroclor 1232	BRL	ug/l	Kg 41
53469-21-9	Aroclor 1242	BRL	ug/l	Kg 41
12672-29-6	Aroclor 1248	BRL	ug/l	Kg 41
11097-69-1	Aroclor 1254	330 1C	(310)* ug/	Kg 41
11096-82-5	Aroclor 1260	BRL	ug/l	Kg 41
37324-23-5	Aroclor 1262 [†]	BRL	ug/l	Kg 41
11100-14-4	Aroclor 1268 [†]	BRL	ug/	Kg 41

QC Surrogate	QC Surrogate Compound		Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	7	5	78 %	30 - 150 %
Column	Decachlorobiphenyl	7	4	64 %	30 - 150 %
Second	Tetrachloro-m -xylene	7	6	83 %	30 - 150 %
Column	Decachlorobiphenyl	7	5	69 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 1C Concentration reported from first column.



Field ID: 124624 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-49 QC Batch ID: PB-3758-X

Sampled: 06-13-11 10:57 Instrument ID: GC-11 Agilent 6890

06-15-11 19:15 Received: Sample Weight: 30 g Extracted: 06-16-11 17:30 Final Volume: 1 mL Cleaned Up: 06-21-11 23:00 Percent Solids: 92 06-22-11 09:17 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	43
11104-28-2	Aroclor 1221	BRL		ug/Kg	43
11141-16-5	Aroclor 1232	BRL		ug/Kg	43
53469-21-9	Aroclor 1242	BRL		ug/Kg	43
12672-29-6	Aroclor 1248	120	1C (110)*	ug/Kg	43
11097-69-1	Aroclor 1254	210	1C (210)*	ug/Kg	43
11096-82-5	Aroclor 1260	BRL		ug/Kg	43
37324-23-5	Aroclor 1262 [†]	BRL		ug/Kg	43
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	43

QC Surrogate	QC Surrogate Compound		Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	7	6	87 %	30 - 150 %
Column	Decachlorobiphenyl	7	5	69 %	30 - 150 %
Second	Tetrachloro-m -xylene	7	7	94 %	30 - 150 %
Column	Decachlorobiphenyl	7	6	82 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 1C Concentration reported from first column.



Field ID: 124627 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-50 QC Batch ID: PB-3758-X

Sampled: 06-13-11 11:00 Instrument ID: GC-11 Agilent 6890

06-15-11 19:15 Received: Sample Weight: 30 g Extracted: 06-16-11 17:30 Final Volume: 1 mL Cleaned Up: 06-21-11 23:00 Percent Solids: 92 06-22-11 09:40 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	43
11104-28-2	Aroclor 1221	BRL	ug/Kg	43	
11141-16-5	Aroclor 1232	BRL	ug/Kg	43	
53469-21-9	Aroclor 1242	BRL	ug/Kg	43	
12672-29-6	Aroclor 1248	BRL		ug/Kg	43
11097-69-1	Aroclor 1254	290	1C (250)*	ug/Kg	43
11096-82-5	Aroclor 1260	170	2C (95)*	ug/Kg	43
37324-23-5	Aroclor 1262 [†]	BRL		ug/Kg	43
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	43

QC Surrogate	QC Surrogate Compound		Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	7	5	74 %	30 - 150 %
Column	Decachlorobiphenyl	7	6	86 %	30 - 150 %
Second	Tetrachloro-m -xylene	7	5	76 %	30 - 150 %
Column	Decachlorobiphenyl	7	7	103 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 1C Concentration reported from first column.
- 2C Concentration reported from second column.



Field ID: 124628 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-51 QC Batch ID: PB-3758-X

Sampled: 06-13-11 11:26 Instrument ID: GC-11 Agilent 6890

06-15-11 19:15 Received: Sample Weight: 30 g Extracted: 06-16-11 17:30 Final Volume: 1 mL Cleaned Up: 06-21-11 23:00 Percent Solids: 87 06-22-11 10:04 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration	Concentration Notes			
12674-11-2	Aroclor 1016	BRL		ug/Kg	45	
11104-28-2	Aroclor 1221	BRL		ug/Kg	45	
11141-16-5	Aroclor 1232	BRL		ug/Kg	45	
53469-21-9	Aroclor 1242	BRL		ug/Kg	45	
12672-29-6	Aroclor 1248	BRL		ug/Kg	45	
11097-69-1	Aroclor 1254	160	2C (110)*	ug/Kg	45	
11096-82-5	Aroclor 1260	99	2C (58)*	ug/Kg	45	
37324-23-5	Aroclor 1262 [†]	BRL		ug/Kg	45	
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	45	

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	8	6	80 %	30 - 150 %
Column	Decachlorobiphenyl	8	7	91 %	30 - 150 %
Second	Tetrachloro-m -xylene	8	6	80 %	30 - 150 %
Column	Decachlorobiphenyl	8	8	111 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 2C Concentration reported from second column.



Field ID: 124631 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-52 QC Batch ID: PB-3758-X

Sampled: 06-13-11 11:30 Instrument ID: GC-11 Agilent 6890

06-15-11 19:15 Received: Sample Weight: 30 g Extracted: 06-16-11 17:30 Final Volume: 1 mL Cleaned Up: 06-21-11 23:00 Percent Solids: 87 06-22-11 10:28 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	45
11104-28-2	Aroclor 1221	BRL		ug/Kg	45
11141-16-5	Aroclor 1232	BRL	BRL		
53469-21-9	Aroclor 1242	BRL	ug/Kg	45	
12672-29-6	Aroclor 1248	BRL		ug/Kg	45
11097-69-1	Aroclor 1254	120	2C (110)*	ug/Kg	45
11096-82-5	Aroclor 1260	79	2C (46)*	ug/Kg	45
37324-23-5	Aroclor 1262 [†]	BRL		ug/Kg	45
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	45

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	8	6	82 %	30 - 150 %
Column	Decachlorobiphenyl	8	7	91 %	30 - 150 %
Second	Tetrachloro-m -xylene	8	6	81 %	30 - 150 %
Column	Decachlorobiphenyl	8	8	112 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 2C Concentration reported from second column.



Field ID: 124634 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-53 QC Batch ID: PB-3758-X

Sampled: 06-13-11 11:34 Instrument ID: GC-11 Agilent 6890

06-15-11 19:15 Received: Sample Weight: 30 g Extracted: 06-16-11 17:30 Final Volume: 1 mL Cleaned Up: 06-21-11 23:00 Percent Solids: 92 06-22-11 12:02 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration	Concentration Notes		Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	43
11104-28-2	Aroclor 1221	BRL		ug/Kg	43
11141-16-5	Aroclor 1232	BRL	BRL		43
53469-21-9	Aroclor 1242	BRL		ug/Kg	43
12672-29-6	Aroclor 1248	BRL		ug/Kg	43
11097-69-1	Aroclor 1254	140	2C (110)*	ug/Kg	43
11096-82-5	Aroclor 1260	BRL		ug/Kg	43
37324-23-5	Aroclor 1262 [†]	BRL		ug/Kg	43
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	43

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	7	3	41 %	30 - 150 %
Column	Decachlorobiphenyl	7	3	34 %	30 - 150 %
Second	Tetrachloro-m-xylene	7	3	42 %	30 - 150 %
Column	Decachlorobiphenyl	7	3	41 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 2C Concentration reported from second column.



Field ID: 124637 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-54 QC Batch ID: PB-3758-X

Sampled: 06-13-11 11:37 Instrument ID: GC-11 Agilent 6890

06-15-11 19:15 Received: Sample Weight: 30 g Extracted: 06-16-11 17:30 Final Volume: 1 mL Cleaned Up: 06-21-11 23:00 Percent Solids: 84 06-22-11 12:26 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	47
11104-28-2	Aroclor 1221	BRL		ug/Kg	47
11141-16-5	Aroclor 1232	BRL		ug/Kg	47
53469-21-9	Aroclor 1242	BRL		ug/Kg	47
12672-29-6	Aroclor 1248	BRL		ug/Kg	47
11097-69-1	Aroclor 1254	510	2C (450)*	ug/Kg	47
11096-82-5	Aroclor 1260	360	2C (240)*	ug/Kg	47
37324-23-5	Aroclor 1262 [†]	BRL		ug/Kg	47
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	47

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	8	5	70 %	30 - 150 %
Column	Decachlorobiphenyl	8	6	78 %	30 - 150 %
Second	Tetrachloro-m-xylene	8	5	70 %	30 - 150 %
Column	Decachlorobiphenyl	8	8	101 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.



Field ID: 124640 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-55 QC Batch ID: PB-3758-X

Sampled: 06-13-11 11:43 Instrument ID: GC-11 Agilent 6890

Received: 06-15-11 19:15 Sample Weight: 30 g Extracted: 06-16-11 17:30 Final Volume: 1 mL Cleaned Up: 06-21-11 23:00 95 Percent Solids: 06-22-11 12:49 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	41
11104-28-2	Aroclor 1221	BRL	ug/Kg	41
11141-16-5	Aroclor 1232	BRL	ug/Kg	41
53469-21-9	Aroclor 1242	BRL	ug/Kg	41
12672-29-6	Aroclor 1248	BRL	ug/Kg	41
11097-69-1	Aroclor 1254	1,300 e 2C (940)*	ug/Kg	41
11096-82-5	Aroclor 1260	BRL	ug/Kg	41
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	41
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	41

QC Surrogate Co	QC Surrogate Compound		Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	7	5	65 %	30 - 150 %
Column	Decachlorobiphenyl	7	4	52 %	30 - 150 %
Second	Tetrachloro-m -xylene	7	5	67 %	30 - 150 %
Column	Decachlorobiphenyl	7	4	64 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 2C Concentration reported from second column.
- e Indicates concentration exceeds calibration range for analyte.



Field ID: 124640 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-55RA1 QC Batch ID: PB-3758-X

Sampled: 06-13-11 11:43 Instrument ID: GC-11 Agilent 6890

06-15-11 19:15 Received: Sample Weight: 30 g Extracted: 06-16-11 17:30 Final Volume: 1 mL Cleaned Up: 06-21-11 23:00 95 Percent Solids: 06-23-11 02:44 Analyzed: Dilution Factor: 10

Analyst: CRL

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	410
11104-28-2	Aroclor 1221	BRL		ug/Kg	410
11141-16-5	Aroclor 1232	BRL	ug/Kg	410	
53469-21-9	Aroclor 1242	BRL	ug/Kg	410	
12672-29-6	Aroclor 1248	BRL		ug/Kg	410
11097-69-1	Aroclor 1254	1,500	2C (1300)*	ug/Kg	410
11096-82-5	Aroclor 1260	BRL		ug/Kg	410
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	410	
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	410	

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	7	5	68 %	30 - 150 %
Column	Decachlorobiphenyl	7	4	62 %	30 - 150 %
Second	Tetrachloro-m-xylene	7	5	74 %	30 - 150 %
Column	Decachlorobiphenyl	7	5	70 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 2C Concentration reported from second column.



Field ID: 124643 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-56 QC Batch ID: PB-3760-X

Sampled: 06-14-11 10:10 Instrument ID: GC-13 Agilent 6890

06-15-11 19:15 Received: Sample Weight: 30 g Extracted: 06-21-11 13:30 Final Volume: 1 mL Cleaned Up: 06-24-11 15:00 Percent Solids: 94 06-24-11 20:09 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	43
11104-28-2	Aroclor 1221	BRL	ug/Kg	43
11141-16-5	Aroclor 1232	BRL	ug/Kg	43
53469-21-9	Aroclor 1242	BRL	ug/Kg	43
12672-29-6	Aroclor 1248	BRL	ug/Kg	43
11097-69-1	Aroclor 1254	110 2C (66)* ug/Kg	43
11096-82-5	Aroclor 1260	BRL	ug/Kg	43
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	43
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	43

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	7	3	40 %	30 - 150 %
Column	Decachlorobiphenyl	7	3	47 %	30 - 150 %
Second	Tetrachloro-m -xylene	7	3	44 %	30 - 150 %
Column	Decachlorobiphenyl	7	3	48 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 2C Concentration reported from second column.



Field ID: 124644 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-57 QC Batch ID: PB-3760-X

Sampled: 06-14-11 10:20 Instrument ID: GC-13 Agilent 6890

06-15-11 19:15 Received: Sample Weight: 30 g Extracted: 06-21-11 13:30 Final Volume: 1 mL Cleaned Up: 06-24-11 15:00 93 Percent Solids: 06-24-11 20:33 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration Notes		Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	43	
11104-28-2	Aroclor 1221	BRL		ug/Kg	43
11141-16-5	Aroclor 1232	BRL	ug/Kg	43	
53469-21-9	Aroclor 1242	BRL		ug/Kg	43
12672-29-6	Aroclor 1248	BRL		ug/Kg	43
11097-69-1	Aroclor 1254	64	2C (47)*	ug/Kg	43
11096-82-5	Aroclor 1260	BRL		ug/Kg	43
37324-23-5	Aroclor 1262 [†]	BRL		ug/Kg	43
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	43	

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	7	5	64 %	30 - 150 %
Column	Decachlorobiphenyl	7	6	79 %	30 - 150 %
Second	Tetrachloro-m -xylene	7	5	66 %	30 - 150 %
Column	Decachlorobiphenyl	7	6	80 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 2C Concentration reported from second column.



Field ID: 124645 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-58 QC Batch ID: PB-3760-X

Sampled: 06-14-11 10:35 Instrument ID: GC-13 Agilent 6890

Received: 06-15-11 19:15 Sample Weight: 30 g Extracted: 06-21-11 13:30 Final Volume: 1 mL Cleaned Up: 06-24-11 15:00 Percent Solids: 92 06-24-11 20:56 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration Notes		Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	43
11104-28-2	Aroclor 1221	BRL		ug/Kg	43
11141-16-5	Aroclor 1232	BRL		ug/Kg	43
53469-21-9	Aroclor 1242	BRL	ug/Kg	43	
12672-29-6	Aroclor 1248	BRL		ug/Kg	43
11097-69-1	Aroclor 1254	340	2C (220)*	ug/Kg	43
11096-82-5	Aroclor 1260	BRL		ug/Kg	43
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	43	
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	43

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	7	6	80 %	30 - 150 %
Column	Decachlorobiphenyl	7	6	88 %	30 - 150 %
Second	Tetrachloro-m -xylene	7	6	84 %	30 - 150 %
Column	Decachlorobiphenyl	7	7	91 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 2C Concentration reported from second column.



Field ID: 124646 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-59 QC Batch ID: PB-3760-X

Sampled: 06-14-11 10:45 Instrument ID: GC-13 Agilent 6890

06-15-11 19:15 Received: Sample Weight: 31 g Extracted: 06-21-11 13:30 Final Volume: 1 mL Cleaned Up: 06-24-11 15:00 Percent Solids: 90 06-24-11 21:20 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration Notes		Units	Reporting Limit	
12674-11-2	Aroclor 1016	BRL		ug/Kg	44	
11104-28-2	Aroclor 1221	BRL		ug/Kg	44	
11141-16-5	Aroclor 1232	BRL	BRL			
53469-21-9	Aroclor 1242	BRL	ug/Kg	44		
12672-29-6	Aroclor 1248	BRL		ug/Kg	44	
11097-69-1	Aroclor 1254	100	2C (72)*	ug/Kg	44	
11096-82-5	Aroclor 1260	BRL		ug/Kg	44	
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	44		
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	44	

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	7	5	67 %	30 - 150 %
Column	Decachlorobiphenyl	7	6	84 %	30 - 150 %
Second	Tetrachloro-m -xylene	7	5	69 %	30 - 150 %
Column	Decachlorobiphenyl	7	7	93 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.



Field ID: 124647 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-60 QC Batch ID: PB-3760-X

Sampled: 06-14-11 10:50 Instrument ID: GC-13 Agilent 6890

Received: 06-15-11 19:15 Sample Weight: 30 g Extracted: 06-21-11 13:30 Final Volume: 1 mL Cleaned Up: 06-24-11 15:00 Percent Solids: 84 06-24-11 22:55 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	47
11104-28-2	Aroclor 1221	BRL	ug/Kg	47
11141-16-5	Aroclor 1232	BRL	ug/Kg	47
53469-21-9	Aroclor 1242	BRL	ug/Kg	47
12672-29-6	Aroclor 1248	BRL	ug/Kg	47
11097-69-1	Aroclor 1254	1,300 e 2C (860)*	ug/Kg	47
11096-82-5	Aroclor 1260	BRL	ug/Kg	47
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	47
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	47

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	8	4	55 %	30 - 150 %
Column	Decachlorobiphenyl	8	5	68 %	30 - 150 %
Second	Tetrachloro-m -xylene	8	5	58 %	30 - 150 %
Column	Decachlorobiphenyl	8	5	68 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 2C Concentration reported from second column.
- e Indicates concentration exceeds calibration range for analyte.



Field ID: 124647 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-60RA1 QC Batch ID: PB-3760-X

Sampled: 06-14-11 10:50 Instrument ID: GC-13 Agilent 6890

06-15-11 19:15 Received: Sample Weight: 30 g Extracted: 06-21-11 13:30 Final Volume: 1 mL Cleaned Up: 06-24-11 15:00 Percent Solids: 84 06-28-11 08:23 Analyzed: Dilution Factor: 5

Analyst: CRL

CAS Number	Analyte	Concentration Notes		Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	240
11104-28-2	Aroclor 1221	BRL		ug/Kg	240
11141-16-5	Aroclor 1232	BRL		ug/Kg	240
53469-21-9	Aroclor 1242	BRL	ug/Kg	240	
12672-29-6	Aroclor 1248	BRL		ug/Kg	240
11097-69-1	Aroclor 1254	1,300	2C (1100)*	ug/Kg	240
11096-82-5	Aroclor 1260	BRL	ug/Kg	240	
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	240	
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	240

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	8	5	61 %	30 - 150 %
Column	Decachlorobiphenyl	8	6	70 %	30 - 150 %
Second	Tetrachloro-m -xylene	8	5	66 %	30 - 150 %
Column	Decachlorobiphenyl	8	6	70 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 2C Concentration reported from second column.



Field ID: 124648 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-61 QC Batch ID: PB-3760-X

Sampled: 06-14-11 11:05 Instrument ID: GC-13 Agilent 6890

06-15-11 19:15 Received: Sample Weight: 30 g Extracted: 06-21-11 13:30 Final Volume: 1 mL Cleaned Up: 06-24-11 15:00 Percent Solids: 87 06-24-11 23:19 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration Notes		Units	Reporting Limit	
12674-11-2	Aroclor 1016	BRL		ug/Kg	46	
11104-28-2	Aroclor 1221	BRL		ug/Kg	46	
11141-16-5	Aroclor 1232	BRL	BRL			
53469-21-9	Aroclor 1242	BRL	ug/Kg	46		
12672-29-6	Aroclor 1248	BRL		ug/Kg	46	
11097-69-1	Aroclor 1254	340	2C (230)*	ug/Kg	46	
11096-82-5	Aroclor 1260	BRL		ug/Kg	46	
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	46		
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	46	

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	8	5	61 %	30 - 150 %
Column	Decachlorobiphenyl	8	6	73 %	30 - 150 %
Second	Tetrachloro-m -xylene	8	5	64 %	30 - 150 %
Column	Decachlorobiphenyl	8	6	77 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 2C Concentration reported from second column.



Field ID: 124649 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-62 QC Batch ID: PB-3760-X

Sampled: 06-14-11 11:00 Instrument ID: GC-13 Agilent 6890

Received: 06-15-11 19:15 Sample Weight: 31 g Extracted: 06-21-11 13:30 Final Volume: 1 mL Cleaned Up: 06-24-11 15:00 Percent Solids: 88 06-24-11 23:43 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration Notes		Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	44	
11104-28-2	Aroclor 1221	BRL		ug/Kg	44
11141-16-5	Aroclor 1232	BRL		ug/Kg	44
53469-21-9	Aroclor 1242	BRL	ug/Kg	44	
12672-29-6	Aroclor 1248	BRL		ug/Kg	44
11097-69-1	Aroclor 1254	300	2C (210)*	ug/Kg	44
11096-82-5	Aroclor 1260	BRL		ug/Kg	44
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	44	
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	44

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	7	5	71 %	30 - 150 %
Column	Decachlorobiphenyl	7	6	78 %	30 - 150 %
Second	Tetrachloro-m -xylene	7	6	74 %	30 - 150 %
Column	Decachlorobiphenyl	7	6	82 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 2C Concentration reported from second column.



Field ID: 124650 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-63 QC Batch ID: PB-3760-X

Sampled: 06-14-11 11:10 Instrument ID: GC-13 Agilent 6890

06-15-11 19:15 Received: Sample Weight: 31 g Extracted: 06-21-11 13:30 Final Volume: 1 mL Cleaned Up: 06-24-11 15:00 Percent Solids: 91 06-25-11 00:07 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	43
11104-28-2	Aroclor 1221	BRL	ug/Kg	43
11141-16-5	Aroclor 1232	BRL	ug/Kg	43
53469-21-9	Aroclor 1242	BRL	ug/Kg	43
12672-29-6	Aroclor 1248	BRL	ug/Kg	43
11097-69-1	Aroclor 1254	BRL	ug/Kg	43
11096-82-5	Aroclor 1260	BRL	ug/Kg	43
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	43
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	43

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	7	5	66 %	30 - 150 %
Column	Decachlorobiphenyl	7	6	83 %	30 - 150 %
Second	Tetrachloro-m -xylene	7	5	69 %	30 - 150 %
Column	Decachlorobiphenyl	7	6	86 %	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on a dry weight basis.

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.



Field ID: 124651 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-64 QC Batch ID: PB-3760-X

Sampled: 06-14-11 11:20 Instrument ID: GC-13 Agilent 6890

Received: 06-15-11 19:15 Sample Weight: 30 g Extracted: 06-21-11 13:30 Final Volume: 1 mL Cleaned Up: 06-24-11 15:00 Percent Solids: 81 06-25-11 00:30 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	49
11104-28-2	Aroclor 1221	BRL	ug/Kg	49
11141-16-5	Aroclor 1232	BRL	ug/Kg	49
53469-21-9	Aroclor 1242	BRL	ug/Kg	49
12672-29-6	Aroclor 1248	BRL	ug/Kg	49
11097-69-1	Aroclor 1254	1,100 e 2C (990)*	ug/Kg	49
11096-82-5	Aroclor 1260	BRL	ug/Kg	49
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	49
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	49

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	8	6	69 %	30 - 150 %
Column	Decachlorobiphenyl	8	7	85 %	30 - 150 %
Second	Tetrachloro-m -xylene	8	6	71 %	30 - 150 %
Column	Decachlorobiphenyl	8	7	85 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.
- e Indicates concentration exceeds calibration range for analyte.



Field ID: 124651 Matrix: Soil

EH&E/17228 Project: Container: 120 mL Amber Glass

Client: **Environmental Health & Engineering, Inc.** Preservation: Cool

142678-64RA1 QC Batch ID: PB-3760-X Laboratory ID:

Sampled: 06-14-11 11:20 Instrument ID: GC-13 Agilent 6890

Received: 06-15-11 19:15 Sample Weight: 30 g Extracted: 06-21-11 13:30 Final Volume: 1 mL Cleaned Up: 06-24-11 15:00 Percent Solids: 81 06-28-11 08:47 Analyzed: Dilution Factor: 5

Analyst: CRL

CAS Number	Analyte	Concentration Notes		Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	240
11104-28-2	Aroclor 1221	BRL		ug/Kg	240
11141-16-5	Aroclor 1232	BRL	ug/Kg	240	
53469-21-9	Aroclor 1242	BRL	ug/Kg	240	
12672-29-6	Aroclor 1248	BRL		ug/Kg	240
11097-69-1	Aroclor 1254	1,200	2C (990)*	ug/Kg	240
11096-82-5	Aroclor 1260	BRL	BRL		
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	240	
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	240

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	8	7	80 %	30 - 150 %
Column	Decachlorobiphenyl	8	7	91 %	30 - 150 %
Second	Tetrachloro-m-xylene	8	7	83 %	30 - 150 %
Column	Decachlorobiphenyl	8	7	88 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on a dry weight basis.

- Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.



Field ID: 124652 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-65 QC Batch ID: PB-3760-X

Sampled: 06-14-11 11:30 Instrument ID: GC-13 Agilent 6890

Received: 06-15-11 19:15 Sample Weight: 31 g Extracted: 06-21-11 13:30 Final Volume: 1 mL Cleaned Up: 06-24-11 15:00 Percent Solids: 82 06-25-11 00:54 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	48
11104-28-2	Aroclor 1221	BRL	ug/Kg	48
11141-16-5	Aroclor 1232	BRL	ug/Kg	48
53469-21-9	Aroclor 1242	BRL	ug/Kg	48
12672-29-6	Aroclor 1248	BRL	ug/Kg	48
11097-69-1	Aroclor 1254	490 e 2C (360)*	ug/Kg	48
11096-82-5	Aroclor 1260	BRL	ug/Kg	48
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	48
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	48

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	8	6	81 %	30 - 150 %
Column	Decachlorobiphenyl	8	8	95 %	30 - 150 %
Second	Tetrachloro-m -xylene	8	7	87 %	30 - 150 %
Column	Decachlorobiphenyl	8	8	99 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.
- e Indicates concentration exceeds calibration range for analyte.



Field ID: 124652 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-65RA1 QC Batch ID: PB-3760-X

Sampled: 06-14-11 11:30 Instrument ID: GC-13 Agilent 6890

Received: 06-15-11 19:15 Sample Weight: 31 g Extracted: 06-21-11 13:30 Final Volume: 1 mL Cleaned Up: 06-24-11 15:00 Percent Solids: 82 06-28-11 09:11 Analyzed: Dilution Factor: 5

Analyst: CRL

CAS Number	Analyte	Concentration Notes		Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	240
11104-28-2	Aroclor 1221	BRL		ug/Kg	240
11141-16-5	Aroclor 1232	BRL		ug/Kg	240
53469-21-9	Aroclor 1242	BRL		ug/Kg	240
12672-29-6	Aroclor 1248	BRL		ug/Kg	240
11097-69-1	Aroclor 1254	510 2C (3	(08)	ug/Kg	240
11096-82-5	Aroclor 1260	BRL		ug/Kg	240
37324-23-5	Aroclor 1262 [†]	BRL		ug/Kg	240
11100-14-4	Aroclor 1268 [†]	BRL	1	ug/Kg	240

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	8	7	87 %	30 - 150 %
Column	Decachlorobiphenyl	8	8	94 %	30 - 150 %
Second	Tetrachloro-m -xylene	8	7	93 %	30 - 150 %
Column	Decachlorobiphenyl	8	8	99 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 2C Concentration reported from second column.



Field ID: 124653 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-66 QC Batch ID: PB-3760-X

Sampled: 06-14-11 11:45 Instrument ID: GC-13 Agilent 6890

Received: 06-15-11 19:15 Sample Weight: 30 g Extracted: 06-21-11 13:30 Final Volume: 1 mL Cleaned Up: 06-24-11 15:00 Percent Solids: 82 06-25-11 01:18 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	48
11104-28-2	Aroclor 1221	BRL		ug/Kg	48
11141-16-5	Aroclor 1232	BRL		ug/Kg	48
53469-21-9	Aroclor 1242	BRL	ug/Kg	48	
12672-29-6	Aroclor 1248	BRL		ug/Kg	48
11097-69-1	Aroclor 1254	240	2C (190)*	ug/Kg	48
11096-82-5	Aroclor 1260	300	2C (190)*	ug/Kg	48
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	48	
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	48

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	8	6	69 %	30 - 150 %
Column	Decachlorobiphenyl	8	6	78 %	30 - 150 %
Second	Tetrachloro-m -xylene	8	6	71 %	30 - 150 %
Column	Decachlorobiphenyl	8	7	82 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 2C Concentration reported from second column.



Field ID: 124654 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-67 QC Batch ID: PB-3760-X

Sampled: 06-14-11 11:57 Instrument ID: GC-13 Agilent 6890

Received: 06-15-11 19:15 Sample Weight: 31 g Extracted: 06-21-11 13:30 Final Volume: 1 mL Cleaned Up: 06-24-11 15:00 Percent Solids: 84 06-25-11 01:42 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration	Units	Reporting Limit	
12674-11-2	Aroclor 1016	BRL		ug/Kg	47
11104-28-2	Aroclor 1221	BRL		ug/Kg	47
11141-16-5	Aroclor 1232	BRL		ug/Kg	47
53469-21-9	Aroclor 1242	BRL	ug/Kg	47	
12672-29-6	Aroclor 1248	BRL		ug/Kg	47
11097-69-1	Aroclor 1254	58	2C (51)*	ug/Kg	47
11096-82-5	Aroclor 1260	62	2C (44)*	ug/Kg	47
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	47	
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	47

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	8	6	83 %	30 - 150 %
Column	Decachlorobiphenyl	8	7	84 %	30 - 150 %
Second	Tetrachloro-m -xylene	8	7	85 %	30 - 150 %
Column	Decachlorobiphenyl	8	7	90 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.



Field ID: 124655 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-68 QC Batch ID: PB-3760-X

Sampled: 06-14-11 12:15 Instrument ID: GC-13 Agilent 6890

Received: 06-15-11 19:15 Sample Weight: 30 g Extracted: 06-21-11 13:30 Final Volume: 1 mL Cleaned Up: 06-24-11 15:00 Percent Solids: 88 06-25-11 02:05 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration	Concentration Notes				
12674-11-2	Aroclor 1016	BRL	BRL				
11104-28-2	Aroclor 1221	BRL		ug/Kg	45		
11141-16-5	Aroclor 1232	BRL	BRL				
53469-21-9	Aroclor 1242	BRL	BRL				
12672-29-6	Aroclor 1248	BRL		ug/Kg	45		
11097-69-1	Aroclor 1254	140	2C (130)*	ug/Kg	45		
11096-82-5	Aroclor 1260	96	2C (58)*	ug/Kg	45		
37324-23-5	Aroclor 1262 [†]	BRL		ug/Kg	45		
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	45		

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	8	5	65 %	30 - 150 %
Column	Decachlorobiphenyl	8	5	69 %	30 - 150 %
Second	Tetrachloro-m -xylene	8	5	68 %	30 - 150 %
Column	Decachlorobiphenyl	8	6	76 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.



Field ID: 124346 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-69 QC Batch ID: PB-3765-X

Sampled: 06-14-11 12:15 Instrument ID: GC-13 Agilent 6890

06-15-11 19:15 Received: Sample Weight: 31 g Extracted: 06-28-11 18:00 Final Volume: 1 mL Cleaned Up: 06-30-11 00:00 Percent Solids: 94 06-30-11 03:39 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration	Concentration Notes				
12674-11-2	Aroclor 1016	BRL	BRL				
11104-28-2	Aroclor 1221	BRL		ug/Kg	42		
11141-16-5	Aroclor 1232	BRL	BRL				
53469-21-9	Aroclor 1242	BRL	BRL				
12672-29-6	Aroclor 1248	110	1C (82)*	ug/Kg	42		
11097-69-1	Aroclor 1254	160	1C (130)*	ug/Kg	42		
11096-82-5	Aroclor 1260	BRL		ug/Kg	42		
37324-23-5	Aroclor 1262 [†]	BRL	BRL				
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	42		

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	7	3	44 %	30 - 150 %
Column	Decachlorobiphenyl	7	4	50 %	30 - 150 %
Second	Tetrachloro-m-xylene	7	3	49 %	30 - 150 %
Column	Decachlorobiphenyl	7	4	53 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 1C Concentration reported from first column.



Field ID: 124347 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-70 QC Batch ID: PB-3765-X

Sampled: 06-14-11 12:25 Instrument ID: GC-13 Agilent 6890

Received: 06-15-11 19:15 Sample Weight: 30 g Extracted: 06-28-11 18:00 Final Volume: 1 mL Cleaned Up: 06-30-11 00:00 95 Percent Solids: 06-30-11 04:03 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration	Units	Reporting Limit		
12674-11-2	Aroclor 1016	BRL	BRL			
11104-28-2	Aroclor 1221	BRL		ug/Kg	42	
11141-16-5	Aroclor 1232	BRL	BRL			
53469-21-9	Aroclor 1242	BRL		ug/Kg	42	
12672-29-6	Aroclor 1248	370	1C (260)*	ug/Kg	42	
11097-69-1	Aroclor 1254	120	2C (100)*	ug/Kg	42	
11096-82-5	Aroclor 1260	BRL		ug/Kg	42	
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	42		
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	42	

QC Surrogate	QC Surrogate Compound		Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	7	2	26 % m	30 - 150 %
Column	Decachlorobiphenyl	7	2	35 %	30 - 150 %
Second	Tetrachloro-m -xylene	7	2	29 % m	30 - 150 %
Column	Decachlorobiphenyl	7	3	42 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 1C Concentration reported from first column.
- 2C Concentration reported from second column.
- m Surrogate recovery outside recommended limits due to sample matrix interference.



Field ID: 124348 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-71 QC Batch ID: PB-3760-X

Sampled: 06-14-11 12:25 Instrument ID: GC-13 Agilent 6890

Received: 06-15-11 19:15 Sample Weight: 30 g Extracted: 06-21-11 13:30 Final Volume: 1 mL Cleaned Up: 06-24-11 15:00 Percent Solids: 90 06-25-11 04:28 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration Note	Units	Reporting Limit	
12674-11-2	Aroclor 1016	BRL		ug/Kg	44
11104-28-2	Aroclor 1221	BRL		ug/Kg	44
11141-16-5	Aroclor 1232	BRL		ug/Kg	44
53469-21-9	Aroclor 1242	BRL		ug/Kg	44
12672-29-6	Aroclor 1248	BRL		ug/Kg	44
11097-69-1	Aroclor 1254	160 2C	(110)*	ug/Kg	44
11096-82-5	Aroclor 1260	140 p 2C	ug/Kg	44	
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	44	
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	44

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	7	6	79 %	30 - 150 %
Column	Decachlorobiphenyl	7	6	82 %	30 - 150 %
Second	Tetrachloro-m-xylene	7	6	87 %	30 - 150 %
Column	Decachlorobiphenyl	7	7	87 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.
- p Greater than 40% difference between primary and confirmation columns.



Field ID: 124349 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-72 QC Batch ID: PB-3760-X

Sampled: 06-14-11 12:33 Instrument ID: GC-13 Agilent 6890

Received: 06-15-11 19:15 Sample Weight: 30 g Extracted: 06-21-11 13:30 Final Volume: 1 mL Cleaned Up: 06-24-11 15:00 Percent Solids: 94 06-25-11 04:52 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	42
11104-28-2	Aroclor 1221	BRL	ug/Kg	42
11141-16-5	Aroclor 1232	BRL	ug/Kg	42
53469-21-9	Aroclor 1242	BRL	ug/Kg	42
12672-29-6	Aroclor 1248	460 e 2C (390)*	ug/Kg	42
11097-69-1	Aroclor 1254	280 1C (220)*	ug/Kg	42
11096-82-5	Aroclor 1260	BRL	ug/Kg	42
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	42
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	42

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	7	5	74 %	30 - 150 %
Column	Decachlorobiphenyl	7	7	93 %	30 - 150 %
Second	Tetrachloro-m -xylene	7	6	84 %	30 - 150 %
Column	Decachlorobiphenyl	7	7	101 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 1C Concentration reported from first column.
- 2C Concentration reported from second column.
- e Indicates concentration exceeds calibration range for analyte.



Field ID: 124349 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-72RA1 QC Batch ID: PB-3760-X

Sampled: 06-14-11 12:33 Instrument ID: GC-13 Agilent 6890

06-15-11 19:15 Received: Sample Weight: 30 g Extracted: 06-21-11 13:30 Final Volume: 1 mL Cleaned Up: 06-24-11 15:00 Percent Solids: 94 06-28-11 09:35 Analyzed: Dilution Factor: 5

Analyst: CRL

CAS Number	Analyte	Concentration	Concentration Notes				
12674-11-2	Aroclor 1016	BRL	BRL				
11104-28-2	Aroclor 1221	BRL	BRL				
11141-16-5	Aroclor 1232	BRL	BRL				
53469-21-9	Aroclor 1242	BRL	BRL				
12672-29-6	Aroclor 1248	450	1C (450)*	ug/Kg	210		
11097-69-1	Aroclor 1254	310	1C (230)*	ug/Kg	210		
11096-82-5	Aroclor 1260	BRL		ug/Kg	210		
37324-23-5	Aroclor 1262 [†]	BRL	BRL				
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	210		

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	7	6	88 %	30 - 150 %
Column	Decachlorobiphenyl	7	7	94 %	30 - 150 %
Second	Tetrachloro-m -xylene	7	7	94 %	30 - 150 %
Column	Decachlorobiphenyl	7	7	96 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 1C Concentration reported from first column.



Field ID: 124350 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-73 QC Batch ID: PB-3761-X

Sampled: 06-14-11 13:05 Instrument ID: GC-13 Agilent 6890

Received: 06-15-11 19:15 Sample Weight: 31 g 06-22-11 03:00 Extracted: Final Volume: 1 mL Cleaned Up: 06-25-11 18:00 Percent Solids: 82 06-27-11 14:18 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	48
11104-28-2	Aroclor 1221	BRL	ug/Kg	48
11141-16-5	Aroclor 1232	BRL	ug/Kg	48
53469-21-9	Aroclor 1242	BRL	ug/Kg	48
12672-29-6	Aroclor 1248	BRL	ug/Kg	48
11097-69-1	Aroclor 1254	BRL	ug/Kg	48
11096-82-5	Aroclor 1260	BRL	ug/Kg	48
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	48
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	48

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	8	5	62 %	30 - 150 %
Column	Decachlorobiphenyl	8	6	69 %	30 - 150 %
Second	Tetrachloro-m -xylene	8	5	61 %	30 - 150 %
Column	Decachlorobiphenyl	8	5	68 %	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on a dry weight basis.

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.



Field ID: 124351 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-74 QC Batch ID: PB-3761-X

Sampled: 06-14-11 13:05 Instrument ID: GC-13 Agilent 6890

Received: 06-15-11 19:15 Sample Weight: 31 g 06-22-11 03:00 Extracted: Final Volume: 1 mL Cleaned Up: 06-25-11 18:00 Percent Solids: 92 06-27-11 14:42 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	43
11104-28-2	Aroclor 1221	BRL	ug/Kg	43
11141-16-5	Aroclor 1232	BRL	ug/Kg	43
53469-21-9	Aroclor 1242	BRL	ug/Kg	43
12672-29-6	Aroclor 1248	BRL	ug/Kg	43
11097-69-1	Aroclor 1254	BRL	ug/Kg	43
11096-82-5	Aroclor 1260	BRL	ug/Kg	43
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	43
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	43

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	7	8	105 %	30 - 150 %
Column	Decachlorobiphenyl	7	7	98 %	30 - 150 %
Second	Tetrachloro-m -xylene	7	7	104 %	30 - 150 %
Column	Decachlorobiphenyl	7	7	101 %	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on a dry weight basis.

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.



Field ID: 124352 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-75 QC Batch ID: PB-3761-X

Sampled: 06-14-11 13:15 Instrument ID: GC-13 Agilent 6890

Received: 06-15-11 19:15 Sample Weight: 30 g 06-22-11 03:00 Extracted: Final Volume: 1 mL Cleaned Up: 06-25-11 18:00 Percent Solids: 96 06-27-11 15:06 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	41
11104-28-2	Aroclor 1221	BRL	ug/Kg	41
11141-16-5	Aroclor 1232	BRL	ug/Kg	41
53469-21-9	Aroclor 1242	BRL	ug/Kg	41
12672-29-6	Aroclor 1248	BRL	ug/Kg	41
11097-69-1	Aroclor 1254	BRL	ug/Kg	41
11096-82-5	Aroclor 1260	BRL	ug/Kg	41
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	41
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	41

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	7	4	56 %	30 - 150 %
Column	Decachlorobiphenyl	7	5	71 %	30 - 150 %
Second	Tetrachloro-m-xylene	7	4	56 %	30 - 150 %
Column	Decachlorobiphenyl	7	5	71 %	30 - 150 %

Method Reference: Test Metho

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on a dry weight basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.



Field ID: 124353 Soil Matrix:

EH&E/17228 Project: Container: 120 mL Amber Glass

Client: **Environmental Health & Engineering, Inc.** Preservation: Cool

142678-76 QC Batch ID: PB-3761-X Laboratory ID:

Sampled: 06-14-11 13:15 Instrument ID: GC-13 Agilent 6890

Received: 06-15-11 19:15 Sample Weight: 30 g 06-22-11 03:00 Extracted: Final Volume: 1 mL Cleaned Up: 06-25-11 18:00 Percent Solids: 96 06-27-11 15:30 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	41
11104-28-2	Aroclor 1221	BRL	ug/Kg	41
11141-16-5	Aroclor 1232	BRL	ug/Kg	41
53469-21-9	Aroclor 1242	BRL	ug/Kg	41
12672-29-6	Aroclor 1248	BRL	ug/Kg	41
11097-69-1	Aroclor 1254	BRL	ug/Kg	41
11096-82-5	Aroclor 1260	BRL	ug/Kg	41
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	41
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	41

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	7	5	80 %	30 - 150 %
Column	Decachlorobiphenyl	7	7	96 %	30 - 150 %
Second	Tetrachloro-m-xylene	7	6	82 %	30 - 150 %
Column	Decachlorobiphenyl	7	7	98 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on a dry weight basis.

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.



Field ID: 124354 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-77 QC Batch ID: PB-3761-X

Sampled: 06-14-11 13:30 Instrument ID: GC-13 Agilent 6890

Received: 06-15-11 19:15 Sample Weight: 30 g Extracted: 06-22-11 03:00 Final Volume: 1 mL Cleaned Up: 06-25-11 18:00 95 Percent Solids: 06-27-11 17:19 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration	Units	Reporting Limit				
12674-11-2	Aroclor 1016	BRL		ug/Kg	42			
11104-28-2	Aroclor 1221	BRL		ug/Kg	42			
11141-16-5	Aroclor 1232	BRL	BRL					
53469-21-9	Aroclor 1242	BRL	BRL					
12672-29-6	Aroclor 1248	BRL		ug/Kg	42			
11097-69-1	Aroclor 1254	240	2C (230)*	ug/Kg	42			
11096-82-5	Aroclor 1260	220 p	ug/Kg	42				
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	42				
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	42				

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	7	6	89 %	30 - 150 %
Column	Decachlorobiphenyl	7	6	85 %	30 - 150 %
Second	Tetrachloro-m -xylene	7	7	96 %	30 - 150 %
Column	Decachlorobiphenyl	7	6	92 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.
- p Greater than 40% difference between primary and confirmation columns.



Field ID: 124355 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-78 QC Batch ID: PB-3761-X

Sampled: 06-14-11 13:30 Instrument ID: GC-13 Agilent 6890

06-15-11 19:15 Received: Sample Weight: 30 g Extracted: 06-22-11 03:00 Final Volume: 1 mL Cleaned Up: 06-25-11 18:00 97 Percent Solids: 06-27-11 17:43 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration Notes		Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	41
11104-28-2	Aroclor 1221	BRL		ug/Kg	41
11141-16-5	Aroclor 1232	BRL	ug/Kg	41	
53469-21-9	Aroclor 1242	BRL	ug/Kg	41	
12672-29-6	Aroclor 1248	BRL		ug/Kg	41
11097-69-1	Aroclor 1254	86	2C (68)*	ug/Kg	41
11096-82-5	Aroclor 1260	67	2C (43)*	ug/Kg	41
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	41	
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	41

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	7	4	63 %	30 - 150 %
Column	Decachlorobiphenyl	7	5	67 %	30 - 150 %
Second	Tetrachloro-m -xylene	7	5	70 %	30 - 150 %
Column	Decachlorobiphenyl	7	5	76 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.



Field ID: 124356 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-79 QC Batch ID: PB-3761-X

Sampled: 06-14-11 13:40 Instrument ID: GC-13 Agilent 6890

06-15-11 19:15 Received: Sample Weight: 30 g Extracted: 06-22-11 03:00 Final Volume: 1 mL Cleaned Up: 06-25-11 18:00 Percent Solids: 98 06-27-11 18:07 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration Notes		Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	40
11104-28-2	Aroclor 1221	BRL		ug/Kg	40
11141-16-5	Aroclor 1232	BRL	ug/Kg	40	
53469-21-9	Aroclor 1242	BRL	ug/Kg	40	
12672-29-6	Aroclor 1248	BRL		ug/Kg	40
11097-69-1	Aroclor 1254	57	2C (49)*	ug/Kg	40
11096-82-5	Aroclor 1260	52	2C (40)*	ug/Kg	40
37324-23-5	Aroclor 1262 [†]	BRL		ug/Kg	40
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	40	

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	7	5	80 %	30 - 150 %
Column	Decachlorobiphenyl	7	5	80 %	30 - 150 %
Second	Tetrachloro-m -xylene	7	6	87 %	30 - 150 %
Column	Decachlorobiphenyl	7	7	98 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 2C Concentration reported from second column.



Field ID: 124357 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-80 QC Batch ID: PB-3761-X

Sampled: 06-14-11 13:40 Instrument ID: GC-13 Agilent 6890

Received: 06-15-11 19:15 Sample Weight: 31 g 06-22-11 03:00 Extracted: Final Volume: 1 mL Cleaned Up: 06-25-11 18:00 Percent Solids: 98 06-27-11 18:31 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	40
11104-28-2	Aroclor 1221	BRL	ug/Kg	40
11141-16-5	Aroclor 1232	BRL	ug/Kg	40
53469-21-9	Aroclor 1242	BRL	ug/Kg	40
12672-29-6	Aroclor 1248	BRL	ug/Kg	40
11097-69-1	Aroclor 1254	BRL	ug/Kg	40
11096-82-5	Aroclor 1260	BRL	ug/Kg	40
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	40
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	40

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	7	5	79 %	30 - 150 %
Column	Decachlorobiphenyl	7	5	73 %	30 - 150 %
Second	Tetrachloro-m -xylene	7	6	85 %	30 - 150 %
Column	Decachlorobiphenyl	7	6	90 %	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on a dry weight basis.

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

[†] Non-target analyte. Result is based on a single mid-range calibration standard.



Field ID: 124358 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-81 QC Batch ID: PB-3761-X

Sampled: 06-14-11 13:50 Instrument ID: GC-13 Agilent 6890

06-15-11 19:15 Received: Sample Weight: 31 g Extracted: 06-22-11 03:00 Final Volume: 1 mL Cleaned Up: 06-25-11 18:00 99 Percent Solids: 06-29-11 16:10 Analyzed: Dilution Factor: 25

Analyst: CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	1,000
11104-28-2	Aroclor 1221	BRL	ug/Kg	1,000
11141-16-5	Aroclor 1232	BRL	ug/Kg	1,000
53469-21-9	Aroclor 1242	BRL	ug/Kg	1,000
12672-29-6	Aroclor 1248	6,300 2C (42	(00)* ug/Kg	1,000
11097-69-1	Aroclor 1254	BRL	ug/Kg	1,000
11096-82-5	Aroclor 1260	BRL	ug/Kg	1,000
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	1,000
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	1,000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	7	na	d	30 - 150 %
Column	Decachlorobiphenyl	7	na	d	30 - 150 %
Second	Tetrachloro-m-xylene	7	na	d	30 - 150 %
Column	Decachlorobiphenyl	7	na	d	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.



Field ID: 124359 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-82 QC Batch ID: PB-3761-X

Sampled: 06-14-11 13:50 Instrument ID: GC-13 Agilent 6890

Received: 06-15-11 19:15 Sample Weight: 30 g Extracted: 06-22-11 03:00 Final Volume: 1 mL Cleaned Up: 06-25-11 18:00 Percent Solids: 98 06-27-11 19:18 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration	Units	Reporting Limit		
12674-11-2	Aroclor 1016	BRL	BRL			
11104-28-2	Aroclor 1221	BRL		ug/Kg	40	
11141-16-5	Aroclor 1232	BRL	ug/Kg	40		
53469-21-9	Aroclor 1242	BRL	ug/Kg	40		
12672-29-6	Aroclor 1248	170	1C (160)*	ug/Kg	40	
11097-69-1	Aroclor 1254	BRL		ug/Kg	40	
11096-82-5	Aroclor 1260	64	2C (48)*	ug/Kg	40	
37324-23-5	Aroclor 1262 [†]	BRL		ug/Kg	40	
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	40	

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	7	6	82 %	30 - 150 %
Column	Decachlorobiphenyl	7	5	74 %	30 - 150 %
Second	Tetrachloro-m -xylene	7	6	85 %	30 - 150 %
Column	Decachlorobiphenyl	7	6	81 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 1C Concentration reported from first column.
- 2C Concentration reported from second column.



Field ID: 124360 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-83 QC Batch ID: PB-3761-X

Sampled: 06-14-11 14:05 Instrument ID: GC-13 Agilent 6890

Received: 06-15-11 19:15 Sample Weight: 30 g Extracted: 06-22-11 03:00 Final Volume: 1 mL Cleaned Up: 06-25-11 18:00 Percent Solids: 99 06-27-11 19:42 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	40
11104-28-2	Aroclor 1221	BRL	ug/Kg	40
11141-16-5	Aroclor 1232	BRL	ug/Kg	40
53469-21-9	Aroclor 1242	BRL	ug/Kg	40
12672-29-6	Aroclor 1248	BRL	ug/Kg	40
11097-69-1	Aroclor 1254	99 2C (84)*	ug/Kg	40
11096-82-5	Aroclor 1260	110 p 2C (53)*	ug/Kg	40
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	40
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	40

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	7	4	66 %	30 - 150 %
Column	Decachlorobiphenyl	7	4	57 %	30 - 150 %
Second	Tetrachloro-m -xylene	7	5	70 %	30 - 150 %
Column	Decachlorobiphenyl	7	5	67 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.
- p Greater than 40% difference between primary and confirmation columns.



Field ID: 124361 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-84 QC Batch ID: PB-3761-X

Sampled: 06-14-11 14:05 Instrument ID: GC-13 Agilent 6890

Received: 06-15-11 19:15 Sample Weight: 30 g Extracted: 06-22-11 03:00 Final Volume: 1 mL Cleaned Up: 06-25-11 18:00 Percent Solids: 98 06-27-11 20:06 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration	Units	Reporting Limit	
12674-11-2	Aroclor 1016	BRL		ug/Kg	41
11104-28-2	Aroclor 1221	BRL		ug/Kg	41
11141-16-5	Aroclor 1232	BRL		ug/Kg	41
53469-21-9	Aroclor 1242	BRL	ug/Kg	41	
12672-29-6	Aroclor 1248	BRL		ug/Kg	41
11097-69-1	Aroclor 1254	67	2C (55)*	ug/Kg	41
11096-82-5	Aroclor 1260	65	2C (43)*	ug/Kg	41
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	41	
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	41

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	7	5	72 %	30 - 150 %
Column	Decachlorobiphenyl	7	5	67 %	30 - 150 %
Second	Tetrachloro-m -xylene	7	5	77 %	30 - 150 %
Column	Decachlorobiphenyl	7	5	75 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.



Field ID: 124362 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-85 QC Batch ID: PB-3761-X

Sampled: 06-14-11 14:25 Instrument ID: GC-13 Agilent 6890

Received: 06-15-11 19:15 Sample Weight: 30 g Extracted: 06-22-11 03:00 Final Volume: 1 mL Cleaned Up: 06-25-11 18:00 97 Percent Solids: 06-27-11 20:30 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration	Units	Reporting Limit			
12674-11-2	Aroclor 1016	BRL	ug/Kg	41			
11104-28-2	Aroclor 1221	BRL		ug/Kg	41		
11141-16-5	Aroclor 1232	BRL	BRL				
53469-21-9	Aroclor 1242	BRL	ug/Kg	41			
12672-29-6	Aroclor 1248	BRL		ug/Kg	41		
11097-69-1	Aroclor 1254	81	2C (76)*	ug/Kg	41		
11096-82-5	Aroclor 1260	85	2C (69)*	ug/Kg	41		
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	41			
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	41			

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	7	5	75 %	30 - 150 %
Column	Decachlorobiphenyl	7	5	71 %	30 - 150 %
Second	Tetrachloro-m -xylene	7	6	80 %	30 - 150 %
Column	Decachlorobiphenyl	7	6	81 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 2C Concentration reported from second column.



Field ID: 124363 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-86 QC Batch ID: PB-3761-X

Sampled: 06-14-11 14:25 Instrument ID: GC-13 Agilent 6890

06-15-11 19:15 Received: Sample Weight: 30 g Extracted: 06-22-11 03:00 Final Volume: 1 mL Cleaned Up: 06-25-11 18:00 Percent Solids: 98 06-27-11 20:54 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration	Units	Reporting Limit	
12674-11-2	Aroclor 1016	BRL		ug/Kg	41
11104-28-2	Aroclor 1221	BRL		ug/Kg	41
11141-16-5	Aroclor 1232	BRL		ug/Kg	41
53469-21-9	Aroclor 1242	BRL	ug/Kg	41	
12672-29-6	Aroclor 1248	BRL		ug/Kg	41
11097-69-1	Aroclor 1254	110	2C (67)*	ug/Kg	41
11096-82-5	Aroclor 1260	84	ug/Kg	41	
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	41	
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	41

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	7	5	77 %	30 - 150 %
Column	Decachlorobiphenyl	7	5	73 %	30 - 150 %
Second	Tetrachloro-m -xylene	7	6	81 %	30 - 150 %
Column	Decachlorobiphenyl	7	6	81 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.



Field ID: 124364 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-87 QC Batch ID: PB-3761-X

Sampled: 06-14-11 14:30 Instrument ID: GC-13 Agilent 6890

06-15-11 19:15 Received: Sample Weight: 30 g Extracted: 06-22-11 03:00 Final Volume: 1 mL Cleaned Up: 06-25-11 18:00 Percent Solids: 98 06-27-11 22:29 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration	Units	Reporting Limit	
12674-11-2	Aroclor 1016	BRL	ug/Kg	40	
11104-28-2	Aroclor 1221	BRL		ug/Kg	40
11141-16-5	Aroclor 1232	BRL	ug/Kg	40	
53469-21-9	Aroclor 1242	BRL	ug/Kg	40	
12672-29-6	Aroclor 1248	BRL		ug/Kg	40
11097-69-1	Aroclor 1254	63	2C (46)*	ug/Kg	40
11096-82-5	Aroclor 1260	53	2C (38)*	ug/Kg	40
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	40	
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	40

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	7	5	72 %	30 - 150 %
Column	Decachlorobiphenyl	7	5	68 %	30 - 150 %
Second	Tetrachloro-m-xylene	7	5	73 %	30 - 150 %
Column	Decachlorobiphenyl	7	5	72 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 2C Concentration reported from second column.



Field ID: 124365 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-88 QC Batch ID: PB-3761-X

Sampled: 06-14-11 14:35 Instrument ID: GC-13 Agilent 6890

06-15-11 19:15 Received: Sample Weight: 30 g Extracted: 06-22-11 03:00 Final Volume: 1 mL Cleaned Up: 06-25-11 18:00 97 Percent Solids: 06-27-11 22:52 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration	Units	Reporting Limit	
12674-11-2	Aroclor 1016	BRL		ug/Kg	41
11104-28-2	Aroclor 1221	BRL		ug/Kg	41
11141-16-5	Aroclor 1232	BRL		ug/Kg	41
53469-21-9	Aroclor 1242	BRL	ug/Kg	41	
12672-29-6	Aroclor 1248	BRL		ug/Kg	41
11097-69-1	Aroclor 1254	52	2C (44)*	ug/Kg	41
11096-82-5	Aroclor 1260	80	ug/Kg	41	
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	41	
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	41

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	7	6	83 %	30 - 150 %
Column	Decachlorobiphenyl	7	5	79 %	30 - 150 %
Second	Tetrachloro-m -xylene	7	6	86 %	30 - 150 %
Column	Decachlorobiphenyl	7	6	86 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 2C Concentration reported from second column.



Field ID: 124366 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-89 QC Batch ID: PB-3761-X

Sampled: 06-14-11 14:52 Instrument ID: GC-13 Agilent 6890

06-15-11 19:15 Received: Sample Weight: 30 g Extracted: 06-22-11 03:00 Final Volume: 1 mL Cleaned Up: 06-25-11 18:00 Percent Solids: 98 06-27-11 23:16 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration	Units	Reporting Limit	
12674-11-2	Aroclor 1016	BRL		ug/Kg	40
11104-28-2	Aroclor 1221	BRL		ug/Kg	40
11141-16-5	Aroclor 1232	BRL		ug/Kg	40
53469-21-9	Aroclor 1242	BRL	ug/Kg	40	
12672-29-6	Aroclor 1248	BRL		ug/Kg	40
11097-69-1	Aroclor 1254	73	1C (71)*	ug/Kg	40
11096-82-5	Aroclor 1260	110	2C (79)*	ug/Kg	40
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	40	
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	40

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	7	6	87 %	30 - 150 %
Column	Decachlorobiphenyl	7	5	76 %	30 - 150 %
Second	Tetrachloro-m -xylene	7	6	91 %	30 - 150 %
Column	Decachlorobiphenyl	7	6	83 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 1C Concentration reported from first column.
- 2C Concentration reported from second column.



Field ID: 124367 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-90 QC Batch ID: PB-3762-X

Sampled: 06-14-11 14:57 Instrument ID: GC-13 Agilent 6890

06-15-11 19:15 Received: Sample Weight: 30 g Extracted: 06-23-11 20:30 Final Volume: 1 mL Cleaned Up: 06-25-11 20:00 96 Percent Solids: 06-28-11 06:01 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	41
11104-28-2	Aroclor 1221	BRL		ug/Kg	41
11141-16-5	Aroclor 1232	BRL	ug/Kg	41	
53469-21-9	Aroclor 1242	BRL	ug/Kg	41	
12672-29-6	Aroclor 1248	BRL		ug/Kg	41
11097-69-1	Aroclor 1254	90	2C (55)*	ug/Kg	41
11096-82-5	Aroclor 1260	76	2C (51)*	ug/Kg	41
37324-23-5	Aroclor 1262 [†]	BRL		ug/Kg	41
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	41

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	7	7	98 %	30 - 150 %
Column	Decachlorobiphenyl	7	6	86 %	30 - 150 %
Second	Tetrachloro-m -xylene	7	7	104 %	30 - 150 %
Column	Decachlorobiphenyl	7	6	93 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

Report Notations:

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 2C Concentration reported from second column.



Field ID: 124368 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-91 QC Batch ID: PB-3762-X

Sampled: 06-14-11 15:05 Instrument ID: GC-13 Agilent 6890

06-15-11 19:15 Received: Sample Weight: 31 g Extracted: 06-23-11 20:30 Final Volume: 1 mL Cleaned Up: 06-25-11 20:00 Percent Solids: 98 06-28-11 06:25 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	40
11104-28-2	Aroclor 1221	BRL		ug/Kg	40
11141-16-5	Aroclor 1232	BRL	ug/Kg	40	
53469-21-9	Aroclor 1242	BRL		ug/Kg	40
12672-29-6	Aroclor 1248	BRL		ug/Kg	40
11097-69-1	Aroclor 1254	69	2C (46)*	ug/Kg	40
11096-82-5	Aroclor 1260	52	2C (39)*	ug/Kg	40
37324-23-5	Aroclor 1262 [†]	BRL		ug/Kg	40
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	40

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	7	6	86 %	30 - 150 %
Column	Decachlorobiphenyl	7	5	74 %	30 - 150 %
Second	Tetrachloro-m -xylene	7	6	94 %	30 - 150 %
Column	Decachlorobiphenyl	7	6	83 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

Report Notations:

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.



Field ID: 124369 Matrix: Soil

Project: EH&E/17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-92 QC Batch ID: PB-3762-X

Sampled: 06-14-11 15:10 Instrument ID: GC-13 Agilent 6890

06-15-11 19:15 Received: Sample Weight: 31 g 06-23-11 20:30 Extracted: Final Volume: 1 mL 06-25-11 20:00 Cleaned Up: Percent Solids: 97 06-28-11 06:48 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	40
11104-28-2	Aroclor 1221	BRL	ug/Kg	40
11141-16-5	Aroclor 1232	BRL	ug/Kg	40
53469-21-9	Aroclor 1242	BRL	ug/Kg	40
12672-29-6	Aroclor 1248	BRL	ug/Kg	40
11097-69-1	Aroclor 1254	BRL	ug/Kg	40
11096-82-5	Aroclor 1260	BRL	ug/Kg	40
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	40
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	40

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	7	4	56 %	30 - 150 %
Column	Decachlorobiphenyl	7	3	51 %	30 - 150 %
Second	Tetrachloro-m -xylene	7	4	62 %	30 - 150 %
Column	Decachlorobiphenyl	7	4	57 %	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on a dry weight basis.

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.



Field ID: 124370 Matrix: Aqueous

Project: EH&E/17228 Container: 1 L Amber Glass

Client: **Environmental Health & Engineering, Inc.** Preservation: Cool

142678-93 QC Batch ID: PB-2696-F Laboratory ID:

Sampled: 06-14-11 14:00 Instrument ID: GC-13 Agilent 6890

06-15-11 19:15 Received: Sample Weight: 870 mL Extracted: 06-16-11 22:00 Final Volume: 1 mL Cleaned Up: 06-18-11 01:00 Dilution Factor: 1

Analyzed: Analyst: CRL

06-20-11 19:34

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/L	0.2
11104-28-2	Aroclor 1221	BRL	ug/L	0.2
11141-16-5	Aroclor 1232	BRL	ug/L	0.2
53469-21-9	Aroclor 1242	BRL	ug/L	0.2
12672-29-6	Aroclor 1248	BRL	ug/L	0.2
11097-69-1	Aroclor 1254	BRL	ug/L	0.2
11096-82-5	Aroclor 1260	BRL	ug/L	0.2
37324-23-5	Aroclor 1262 [†]	BRL	ug/L	0.2
11100-14-4	Aroclor 1268 [†]	BRL	ug/L	0.2

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	0.23	0.59	257 % m	30 - 150 %
Column	Decachlorobiphenyl	0.23	0.28	122 %	30 - 150 %
Second	Tetrachloro-m-xylene	0.23	0.32	141 %	30 - 150 %
Column	Decachlorobiphenyl	0.23	0.19	84 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3510C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Report Notations:

- Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- Non-target analyte. Result is based on a single mid-range calibration standard.
- Surrogate recovery outside recommended limits due to sample matrix interference. m



Field ID: 124371 Matrix: Aqueous

Project: EH&E/17228 Container: 1 L Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 142678-94 QC Batch ID: PB-2696-F

Sampled: 06-14-11 14:00 Instrument ID: GC-13 Agilent 6890

 Received:
 06-15-11
 19:15
 Sample Weight:
 870 mL

 Extracted:
 06-16-11
 22:00
 Final Volume:
 1 mL

 Cleaned Up:
 06-18-11
 01:00
 Dilution Factor:
 1

Analyzed: **06-20-11 19:58**

Analyst: CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/L	0.2
11104-28-2	Aroclor 1221	BRL	ug/L	0.2
11141-16-5	Aroclor 1232	BRL	ug/L	0.2
53469-21-9	Aroclor 1242	BRL	ug/L	0.2
12672-29-6	Aroclor 1248	BRL	ug/L	0.2
11097-69-1	Aroclor 1254	BRL	ug/L	0.2
11096-82-5	Aroclor 1260	BRL	ug/L	0.2
37324-23-5	Aroclor 1262 [†]	BRL	ug/L	0.2
11100-14-4	Aroclor 1268 [†]	BRL	ug/L	0.2

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	0.23	0.33	146 %	30 - 150 %
Column	Decachlorobiphenyl	0.23	0.17	75 %	30 - 150 %
Second	Tetrachloro-m -xylene	0.23	0.22	95 %	30 - 150 %
Column	Decachlorobiphenyl	0.23	0.17	73 %	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3510C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.



Project Narrative

Project: **EH&E/17228** Lab ID: **142678**

Client: Environmental Health & Engineering, Inc. Received: 06-15-11 19:15

A. Documentation and Client Communication

The following documentation discrepancies, and client changes or amendments were noted for this project:

1. 124613 through 142621 had sample dates on the chain of custody as 6/14/11. Same samples had dates of 6/13/11 on containers. Samples logged in as sampled on 6/13/11 per Karrie-Ann Myer.

B. Method Modifications, Non-Conformances and Observations

The sample(s) in this project were analyzed by the references analytical method(s), and no method modifications, non-conformances or analytical issues were noted, except as indicated below:

- 1. EPA 8082 Non-conformance: Sample 142678-81. Sample did not have measureable surrogate recoveries due to required sample dilution.
- 2. EPA 8082 Non-conformance: Samples 142678-19, -21 -29, -30, -32, -34, -35, -36, -39, -40, -55, -60, -64, -65, -72. Reported results for selected analytes exceeded the high standard of the associated calibration curve. Results are estimated. Sample was reanalyzed and reported with all analytes within calibration.
- 3. EPA 8082 Note: Samples 142678-35 through -39, -41, -42, -43, -45, -46, -60, -64, -65, -72, -81. Sample were diluted prior to analysis. Dilution was required to keep all target analytes within calibration. Elevated reporting limits are above CAM recommended reporting limits.
- 4. EPA 8082 Non-conformance: Samples 142678-70, -93. Samples had surrogate recoveries outside recommended limits due to sample matrix interference.
- 5 . EPA 8082 Non-conformance: Samples 142678-71, -77, -83. Samples had analyte concentration with greater than 40% difference between the primary and confirmation columns.
- 6. EPA 8082 Note: Sample 142678-81. Sample had extreme weathering of heavy end of Aroclor 1248 pattern.
- 7. EPA 8082 Non-conformance: Samples 142678-03, -04, -07, -08, -37, -38, -41, -42, -45, -46. Matrix spike and matrix spike duplicate samples had analyte recoveries above recommended limits due to the presence of multiple Aroclors native to the samples.
- 8. EPA 8082 Note: Samples 142678-01, -02, -05, 09, -19, -21, -22, -25 through -36, -40, -44, -47, -49, -50 through -92. Weighted average used to calculate concentrations, due to multiple Aroclors and non-target matrix interference.

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Environmental Health &

CHAIN OF CUSTODY FORM

COC 1 of 6

Engineering, Inc. FROM: Environmental Health and Engineering, Inc. 117 Fourth Avenue

2			Needham, MA 02494-2	725
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			EH&E Project # 17228	122
		overed by EH&E Purchase	Order #	033
	ta Coordinator - U		L METHOD/NUMBER	OTHER:Time/Date/Vol.
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134681	S Bulk	PCB 8082 W/Sa	xlet Extaction	0755 /6/13/2011
194283	D 2011		TT (20074200)	
124583	ms mso	parent sample: 12	1 581	
134584	'S	J		
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Received by:		of (company r	name)	Date:
Lab Data			ntal Health & Engineering, Inc.	Date:

Lab Data

Received by: .

CHAIN OF CUSTODY FORM

COC 2 of 6

Pagage 116 of 158

TO: GROW	ndwadee An	117 Fourth Aven Needham, MA 0	
			ATTN: Data Coordinator
In all correspon	ndence regarding	this matter, please refer to EH&E Project #	228
		covered by EH&E Purchase Order #	02033
	ta Coordinator - U		
SAMPLE ID	SAMPLE TYPE	ANALYTICAL METHOD/NUMBER	OTHER:Time/Date/V
124594	S Bulk	PCB 8082 w Soxlet Extract	um 0850 6/13/
124598	S soil		0655
124599	5		0857
124600	S		08-59
124601	S		906
124602	8		0908
124603	5		0922
124604	5		0924
124605	S		0949
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	6/4	turn one copy of this form to the above	4 / /
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0.37		of (company name)	Date:
Received by:		of (company name)	Date:

of Environmental Health & Engineering, Inc. .

CHAIN OF CUSTODY FORM

DATE: 6/14/11

FROM: Environmental Health and Engineering, Inc. 117 Fourth Avenue Needham, MA 02494-2725

TO:	GWA			
	******	Please send invoices to ATTN Please send reports to ATTN	and the state of t	
In all corres	pondence regarding t	M.	1228	*(
8		100	2033	
	Data Coordinator - U	overed by Erial Faichase Order #		
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12461		1 parent: 124611 EPA 8082	1073 -	6/14/
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Relinquishe	ed by:	Environmental Health & Engineering, Inc.	Date: 6/14	1/11
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Relinquishe	ed by: Blaze ma	ddlgan of (company name) Groundwater	<u> a</u> Date: <u>6/15/</u>	<u> </u>
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Relinquishe	ed by:	of (company name)	Date:	
Received b	y:	of (company name)	Date:	
Lab Data Received b	y:	of Environmental Health & Engineering, Inc.	Date:	
			Page 37 of	126

CHAIN OF CUSTODY FORM

DATE: 6/14/11

FROM: Environmental Health and Engineering, Inc. 117 Fourth Avenue

TO:	GWA	¥II		
In all correspon	donce regarding th	nic matter please refe	r to EH&E Project #	17728
			hase Order #	1002033
	ta Coordinator - U		nase Order #	
SAMPLE ID	SAMPLE TYPE		TICAL METHOD/NUMBER	OTHER:Time/Da
124631	Bulksoil	EPA 80	82 (PCBs)	1130 6/13/
124634		Soxhle		1134
124637				1137
124640				1143
124643.	148		-	1010 6/14/
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124653				1145
124654			V	1157
Special instru	Standard Fax resu RETURN	turn around time Its 781-247-4305 I SAMPLES al report recipient	☐ Rush by	Otheracoordinator@eheinc.com
Each signa	tory please ret	urn one copy of t	this form to the above	address
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Relinquished b	y algu mo	idaligan of (compa	ny name) <i>Yzoundwate</i>	ra Date: 6/15/11
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Lah Data			ny name) mental Health & Engineering	
neceived by		Of Environ	* Indian a Engineering	Pagage 148 of 68

CHAIN OF CUSTODY FORM

DATE: 6/14/11

FROM: Environmental Health and Engineering, Inc. 117 Fourth Avenue

TO	Gu	A	Needham, MA 0249	94-2725
то:		#10.	Please send invoices to A Please send reports to AT	
In all corrector	dence regarding th	nis matter please refer	to EH&E Project #	17228
	The second second			002033
	ta Coordinator - UF		ase Order #/	
SAMPLE ID	SAMPLE TYPE		CAL METHOD/NUMBER	OTHER:Time/Date/Vo
124655	Bulk-soil	FIDA 809	82 - (PCBS)	1215 6/141
124346		goxhlet	extr.	1915
124347	*	The state of the s		1225
124348				1995
124349				1733
124350			N.	1305
124351				1305
124352				1315
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124355				1330
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ANTI-CONTRACTOR DESCRIPTION OF STATE			y name)	
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Lab Data Received by: _		of Environm	nental Health & Engineering, Ir	nc. Date:
		N		Pagage 11906f 158

CHAIN OF CUSTODY FORM

DATE: 6/14/11

FROM: Environmental Health and Engineering, Inc. 117 Fourth Avenue Needham, MA 02494-2725

TO:	GW	Please send invoices to A	ATTN: Accounts Pavable
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In all correspor	ndence regarding th	is matter, please refer to EH&E Project #	17728
		overed by EH&E Purchase Order #	
	ata Coordinator - UF		
SAMPLE ID	SAMPLE TYPE	ANALYTICAL METHOD/NUMBER	OTHER:Time/Date/Vo
124361	Bulk-Soil	EPA 8082 - (PCBS)	1405 6/14/
124362	2 1	Söxhlet extr.	1425
124363			1425
124364			1430
124365	1 40		1435
124366			1452
124367			1457
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124370	Vater	EPA 8082 - PLBS	1400 6/4/1
124371	4	soxulet extr.	1400 1
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2.800	☐ RETURN ☐ Additiona	SAMPLES	oordinator@eheinc.com
Each signa	tory please retu	rn one copy of this form to the above a	ddress
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		of (company name)	Date:
Lah Data		of Environmental Health & Engineering, I	nc. Date:
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Quality Assurance/Quality Control

A. Program Overview

Groundwater Analytical conducts an active Quality Assurance program to ensure the production of high quality, valid data. This program closely follows the guidance provided by *Interim Guidelines and Specifications for Preparing Quality Assurance Project Plans*, US EPA QAMS-005/80 (1980), and *Test Methods for Evaluating Solid Waste*, US EPA, SW-846, Update III (1996).

Quality Control protocols include written Standard Operating Procedures (SOPs) developed for each analytical method. SOPs are derived from US EPA methodologies and other established references. Standards are prepared from commercially obtained reference materials of certified purity, and documented for traceability.

Quality Assessment protocols for most organic analyses include a minimum of one laboratory control sample, one method blank, one matrix spike sample, and one sample duplicate for each sample preparation batch. All samples, standards, blanks, laboratory control samples, matrix spikes and sample duplicates are spiked with internal standards and surrogate compounds. All instrument sequences begin with an initial calibration verification standard and a blank; and excepting GC/MS sequences, all sequences close with a continuing calibration standard. GC/MS systems are tuned to appropriate ion abundance criteria daily, or for each 12 hour operating period, whichever is more frequent.

Quality Assessment protocols for most inorganic analyses include a minimum of one laboratory control sample, one method blank, one matrix spike sample, and one sample duplicate for each sample preparation batch. Standard curves are derived from one reagent blank and four concentration levels. Curve validity is verified by standard recoveries within plus or minus ten percent of the curve.

B. Definitions

Batches are used as the basic unit for Quality Assessment. A Batch is defined as twenty or fewer samples of the same matrix which are prepared together for the same analysis, using the same lots of reagents and the same techniques or manipulations, all within the same continuum of time, up to but not exceeding 24 hours.

Laboratory Control Samples are used to assess the accuracy of the analytical method. A Laboratory Control Sample consists of reagent water or sodium sulfate spiked with a group of target analytes representative of the method analytes. Accuracy is defined as the degree of agreement of the measured value with the true or expected value. Percent Recoveries for the Laboratory Control Samples are calculated to assess accuracy.

Method Blanks are used to assess the level of contamination present in the analytical system. Method Blanks consist of reagent water or an aliquot of sodium sulfate. Method Blanks are taken through all the appropriate steps of an analytical method. Sample data reported is not corrected for blank contamination.

Surrogate Compounds are used to assess the effectiveness of an analytical method in dealing with each sample matrix. Surrogate Compounds are organic compounds which are similar to the target analytes of interest in chemical behavior, but which are not normally found in environmental samples. Percent Recoveries are calculated for each Surrogate Compound.



Quality Control Report Laboratory Control Samples

LCSD LCSD

EPA 8082 Instrument ID: GC-13 Agilent 6890 Instrument ID: GC-13 Agilent 6890 Category: PB-3762-X QC Batch ID: Extracted: 06-23-11 20:30 Extracted: 06-23-11 20:30 06-25-11 20:00 06-25-11 20:00 Matrix: Soil Cleaned Up: Cleaned Up: Units: 06-28-11 00:04 Analyzed: 06-28-11 00:28 ug/Kg Analyzed: Analyst: CRL Analyst: CRL

	LCS														
CAS Number	Analyte	Spiked	Mea	sured	Reco	overy	Spiked	Mea	sured	Reco	very	RI	D	QC Lir	mits
			1st Col	2nd Col	1st Col	2nd Col		1st Col	2nd Col	1st Col	2nd Col	1st Col	2nd Col	Spike	RPD
12674-11-2	Aroclor 1016	170	170	170	101%	105%	170	160	160	93%	95%	7 %	10 %	40 - 140%	30 %
11096-82-5	Aroclor 1260	170	170	180	101%	108%	170	170	180	104%	110%	3 %	1 %	40 - 140%	30 %

QC Surrogate Compound					Surro	gate Rec	covery				QC Limits
Tetrachloro-m -xylene	6.7	6.7	6.8	101%	102%	6.7	5.8	5.9	88%	89%	30 - 150 %
Decachlorobiphenyl	6.7	5.9	6.4	89%	96%	6.7	6.1	6.5	92%	98%	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Report Notations: All calculations performed prior to rounding. Quality Control Limits are defined by the methodology,

or alternatively based upon the historical average recovery plus or minus three standard deviation units.



Quality Control Report Method Blank

 Category:
 EPA Method 8082
 Instrument ID:
 GC-13 Agilent 6890

 QC Batch ID:
 PB-3762-X
 Extracted:
 06-23-11 20:30

 Matrix:
 Soil
 Cleaned Up:
 06-25-11 20:00

Analyzed: 06-25-11 20:00 O6-27-11 23:40

Analyst: CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	40
11104-28-2	Aroclor 1221	BRL	ug/Kg	40
11141-16-5	Aroclor 1232	BRL	ug/Kg	40
53469-21-9	Aroclor 1242	BRL	ug/Kg	40
12672-29-6	Aroclor 1248	BRL	ug/Kg	40
11097-69-1	Aroclor 1254	BRL	ug/Kg	40
11096-82-5	Aroclor 1260	BRL	ug/Kg	40
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	40
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	40

QC Surrogate	Compound	Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	6.7	6.5	98 %	30 - 150 %
Column	Decachlorobiphenyl	6.7	5.9	88 %	30 - 150 %
Second	Tetrachloro-m -xylene	6.7	6.9	103 %	30 - 150 %
Column	Decachlorobiphenyl	6.7	6.2	93 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.



Quality Control Report Laboratory Control Samples

LCS LCSD

EPA 8082 Instrument ID: GC-11 Agilent 6890 Instrument ID: GC-11 Agilent 6890 Category: PB-3757-X QC Batch ID: Extracted: 06-16-11 14:15 Extracted: 06-16-11 14:15 06-20-11 21:00 06-20-11 21:00 Matrix: Soil Cleaned Up: Cleaned Up: 06-21-11 10:34 Units: 06-21-11 10:57 ug/Kg Analyzed: Analyzed: Analyst: CRL Analyst: CRL

		LCS					LCS Duplicate								
CAS Number	Analyte	Spiked	Spiked Measured		Recovery		Spiked	Meas	sured	Reco	very	RI	PD	QC Lir	nits
			1st Col	2nd Col	1st Col	2nd Col		1st Col	2nd Col	1st Col	2nd Col	1st Col	2nd Col	Spike	RPD
12674-11-2	Aroclor 1016	170	150	140	90%	85%	170	160	150	94%	92%	4 %	7 %	40 - 140%	30 %
11096-82-5	Aroclor 1260	170	160	150	97%	89%	170	170	160	102%	96%	5 %	8 %	40 - 140%	30 %

QC Surrogate Compound					Surro	gate Rec	covery				QC Limits
Tetrachloro-m -xylene	6.7	5.2	5	79%	75%	6.7	5.4	5.2	82%	78%	30 - 150 %
Decachlorobiphenyl	6.7	6.5	6.2	97%	92%	6.7	6.5	6.6	98%	99%	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Report Notations: All calculations performed prior to rounding. Quality Control Limits are defined by the methodology,

or alternatively based upon the historical average recovery plus or minus three standard deviation units.



Quality Control Report Method Blank

 Category:
 EPA Method 8082
 Instrument ID:
 GC-11 Agilent 6890

 QC Batch ID:
 PB-3757-X
 Extracted:
 06-16-11 14:15

Matrix: Soil Cleaned Up: 06-20-11 21:00
Analyzed: 06-21-11 10:10

Analyst: CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	40
11104-28-2	Aroclor 1221	BRL	ug/Kg	40
11141-16-5	Aroclor 1232	BRL	ug/Kg	40
53469-21-9	Aroclor 1242	BRL	ug/Kg	40
12672-29-6	Aroclor 1248	BRL	ug/Kg	40
11097-69-1	Aroclor 1254	BRL	ug/Kg	40
11096-82-5	Aroclor 1260	BRL	ug/Kg	40
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	40
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	40

QC Surrogate	Spiked	Measured	Recovery	QC Limits	
First	Tetrachloro-m-xylene	6.7	5.6	85 %	30 - 150 %
Column	Decachlorobiphenyl	6.7	6	91 %	30 - 150 %
Second	Tetrachloro-m-xylene	6.7	5.4	82 %	30 - 150 %
Column	Decachlorobiphenyl	6.7	6.7	101 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.



Quality Control Report Laboratory Control Samples

LCSD LCSD

EPA 8082 Instrument ID: GC-11 Agilent 6890 Instrument ID: GC-11 Agilent 6890 Category: PB-3758-X 06-16-11 17:30 QC Batch ID: Extracted: 06-16-11 17:30 Extracted: 06-21-11 23:00 06-21-11 23:00 Matrix: Soil Cleaned Up: Cleaned Up: 06-22-11 02:13 Units: 06-22-11 02:36 ug/Kg Analyzed: Analyzed: Analyst: CRL Analyst: CRL

				LCS						LCS Dupli	icate				
CAS Number	Analyte	Spiked	Mea	Measured		Recovery		Spiked Measured		Recovery		RPD		QC Limits	
			1st Col	2nd Col	1st Col	2nd Col		1st Col	2nd Col	1st Col	2nd Col	1st Col	2nd Col	Spike	RPD
12674-11-2	Aroclor 1016	170	180	160	109%	98%	170	170	160	104%	97%	5 %	1 %	40 - 140%	30 %
11096-82-5	Aroclor 1260	170	180	170	109%	105%	170	170	170	102%	104%	7 %	1 %	40 - 140%	30 %

QC Surrogate Compound		Surrogate Recovery										
Tetrachloro-m -xylene	6.7	6	5.5	91%	83%	6.7	6	5.6	91%	84%		30 - 150 %
Decachlorobiphenyl	6.7	6.1	7.1	91%	106%	6.7	6	7	91%	105%		30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Report Notations: All calculations performed prior to rounding. Quality Control Limits are defined by the methodology,

or alternatively based upon the historical average recovery plus or minus three standard deviation units.



Quality Control Report Method Blank

Category: EPA Method 8082 Instrument ID: QC Batch ID: PB-3758-X Extracted:

 QC Batch ID:
 PB-3758-X
 Extracted:
 06-16-11
 17:30

 Matrix:
 Soil
 Cleaned Up:
 06-21-11
 23:00

 Analyzed:
 06-22-11
 01:49

Analyst: CRL

GC-11 Agilent 6890

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	40
11104-28-2	Aroclor 1221	BRL	ug/Kg	40
11141-16-5	Aroclor 1232	BRL	ug/Kg	40
53469-21-9	Aroclor 1242	BRL	ug/Kg	40
12672-29-6	Aroclor 1248	BRL	ug/Kg	40
11097-69-1	Aroclor 1254	BRL	ug/Kg	40
11096-82-5	Aroclor 1260	BRL	ug/Kg	40
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	40
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	40

QC Surrogate	Compound	Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	6.7	6.1	92 %	30 - 150 %
Column	Decachlorobiphenyl	6.7	6.2	94 %	30 - 150 %
Second	Tetrachloro-m-xylene	6.7	5.8	87 %	30 - 150 %
Column	Decachlorobiphenyl	6.7	6.9	104 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.



Quality Control Report Laboratory Control Sample

EPA Method 608 PCBs Instrument ID: GC-13 Agilent 6890 Category: QC Batch ID: PB-2696-F Extracted: 06-16-11 22:00 Matrix: Cleaned Up: 06-18-11 01:00 Aqueous 06-20-11 15:12 Units: ug/L Analyzed:

Analyst: CRL

CAS Number	Analyte	Spiked	Meas	sured	Reco	overy	QC Limits
			1st Column	2nd Column	1st Column	2nd Column	
12674-11-2	Aroclor 1016	5.0	4.9	4.7	99 %	93 %	40 - 140 %
11096-82-5	Aroclor 1260	5.0	4.8	4.7	96 %	94 %	40 - 140 %

QC Surrogate Compound	Spiked	Mea	sured	Reco	QC Limits	
Tetrachloro-m -xylene	0.20	0.18	0.17	91 %	87 %	30 - 150 %
Decachlorobiphenyl	0.20	0.16	0.16	81 %	81 %	30 - 150 %

Method Reference: Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater, US EPA, 40 C.F.R. 136, Appendix A, (1986). Sample extraction performed by EPA Method 3510C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Report Notations: All calculations performed prior to rounding. Quality Control Limits are defined by the methodology,

or alternatively based upon the historical average recovery plus or minus three standard deviation units.



Quality Control Report Method Blank

 Category:
 EPA Method 608 PCBs
 Instrument ID:
 GC-13 Agilent 6890

 QC Batch ID:
 PB-2696-F
 Extracted:
 06-16-11 22:00

Matrix: Aqueous Cleaned Up: 06-18-11 01:00
Analyzed: 06-20-11 14:48

Analyst: CRL

CAS Number	Analyte		Concer	ntration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016			BRL		ug/L	0.20
11104-28-2	Aroclor 1221			BRL		ug/L	0.20
11141-16-5	Aroclor 1232			BRL		ug/L	0.20
53469-21-9	Aroclor 1242					ug/L	0.20
12672-29-6	Aroclor 1248		BRL		ug/L	0.20	
11097-69-1	Aroclor 1254		BRL		ug/L	0.20	
11096-82-5	Aroclor 1260			BRL		ug/L	0.20
QC Surrogate C	Compound	Spiked	Measured	Recovery		Q	C Limits
First	Tetrachloro-m -xylene	0.20	0.18	0.18 89 %			- 150 %
Column	Decachlorobiphenyl	0.15	77 %		30 - 150 %		
Second	Tetrachloro-m-xylene	0.17	0.17 86 %			- 150 %	
Column	Decachlorobiphenyl	0.15	76 %		30 - 150 %		

Method Reference: Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater, US EPA, 40 C.F.R. 136, Appendix A, (1986). Sample extraction performed by EPA Method 3510C. Cleanup performed by EPA Method 3660B and EPA Method 365A.

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.



Quality Control Report Laboratory Control Samples

LCSD LCSD

EPA 8082 Instrument ID: GC-13 Agilent 6890 Instrument ID: GC-13 Agilent 6890 Category: PB-3765-X QC Batch ID: Extracted: 06-28-11 18:00 Extracted: 06-28-11 18:00 06-30-11 00:00 06-30-11 00:00 Matrix: Soil Cleaned Up: Cleaned Up: Units: 06-30-11 02:27 Analyzed: 06-30-11 02:51 ug/Kg Analyzed: Analyst: CRL Analyst: CRL

				LCS						LCS Dupli	icate				
CAS Number	Analyte	Spiked	Measured		Recovery		Spiked	Spiked Measured		Recovery		RPD		QC Limits	
			1st Col	2nd Col	1st Col	2nd Col		1st Col	2nd Col	1st Col	2nd Col	1st Col	2nd Col	Spike	RPD
12674-11-2	Aroclor 1016	170	180	170	108%	103%	170	170	160	101%	99%	7 %	4 %	40 - 140%	30 %
11096-82-5	Aroclor 1260	170	170	170	102%	104%	170	170	170	100%	103%	2 %	1 %	40 - 140%	30 %

QC Surrogate Compound					Surro	gate Rec	covery				QC Limits
Tetrachloro-m -xylene	6.7	6.9	6.9	103%	104%	6.7	6.5	6.4	98%	96%	30 - 150 %
Decachlorobiphenyl	6.7	5.8	6	88%	90%	6.7	5.6	5.9	85%	89%	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Report Notations: All calculations performed prior to rounding. Quality Control Limits are defined by the methodology,

or alternatively based upon the historical average recovery plus or minus three standard deviation units.



Quality Control Report Method Blank

 Category:
 EPA Method 8082
 Instrument ID:
 GC-13 Agilent 6890

 QC Batch ID:
 PB-3765-X
 Extracted:
 06-28-11 18:00

Matrix: Soil Cleaned Up: 06-30-11 00:00
Analyzed: 06-30-11 02:04

Analyst: CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	40
11104-28-2	Aroclor 1221	BRL	ug/Kg	40
11141-16-5	Aroclor 1232	BRL	ug/Kg	40
53469-21-9	Aroclor 1242	BRL	ug/Kg	40
12672-29-6	Aroclor 1248	BRL	ug/Kg	40
11097-69-1	Aroclor 1254	BRL	ug/Kg	40
11096-82-5	Aroclor 1260	BRL	ug/Kg	40
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	40
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	40

QC Surrogate	Compound	Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	6.7	7	106 %	30 - 150 %
Column	Decachlorobiphenyl	6.7	5.8	86 %	30 - 150 %
Second	Tetrachloro-m -xylene	6.7	7	105 %	30 - 150 %
Column	Decachlorobiphenyl	6.7	6	90 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.



Quality Control Report Laboratory Control Samples

LCSD LCSD

EPA 8082 Instrument ID: GC-13 Agilent 6890 Instrument ID: GC-13 Agilent 6890 Category: PB-3760-X 06-21-11 13:30 06-21-11 13:30 QC Batch ID: Extracted: Extracted: 06-24-11 15:00 06-24-11 15:00 Matrix: Soil Cleaned Up: Cleaned Up: 06-24-11 18:10 Units: 06-24-11 18:34 ug/Kg Analyzed: Analyzed: Analyst: CRL Analyst: CRL

				LCS						LCS Dupli	cate				
CAS Number	Analyte	Spiked	Mea	Measured		Recovery		Spiked Measured		Recovery		RPD		QC Limits	
			1st Col	2nd Col	1st Col	2nd Col		1st Col	2nd Col	1st Col	2nd Col	1st Col	2nd Col	Spike	RPD
12674-11-2	Aroclor 1016	170	160	160	98%	98%	170	150	160	92%	94%	7 %	5 %	40 - 140%	30 %
11096-82-5	Aroclor 1260	170	170	170	102%	104%	170	170	170	100%	103%	2 %	1 %	40 - 140%	30 %

QC Surrogate Compound					Surro	gate Rec	covery				QC Limits
Tetrachloro-m -xylene	6.7	6.2	6.1	93%	92%	6.7	5.3	5.3	80%	80%	30 - 150 %
Decachlorobiphenyl	6.7	6.3	6.6	95%	100%	6.7	6.2	6.6	94%	99%	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Report Notations: All calculations performed prior to rounding. Quality Control Limits are defined by the methodology,

or alternatively based upon the historical average recovery plus or minus three standard deviation units.



Quality Control Report Method Blank

 Category:
 EPA Method 8082
 Instrument ID:
 GC-13 Agilent 6890

 QC Batch ID:
 PB-3760-X
 Extracted:
 06-21-11 13:30

Matrix: Soil Cleaned Up: 06-24-11 15:00 Analyzed: 06-24-11 17:46

Analyst: CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	40
11104-28-2	Aroclor 1221	BRL	ug/Kg	40
11141-16-5	Aroclor 1232	BRL	ug/Kg	40
53469-21-9	Aroclor 1242	BRL	ug/Kg	40
12672-29-6	Aroclor 1248	BRL	ug/Kg	40
11097-69-1	Aroclor 1254	BRL	ug/Kg	40
11096-82-5	Aroclor 1260	BRL	ug/Kg	40
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	40
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	40

QC Surrogate	Spiked	Measured	Recovery	QC Limits	
First	irst Tetrachloro-m -xylene		5.4	82 %	30 - 150 %
Column	Decachlorobiphenyl	6.7	5.9	89 %	30 - 150 %
Second	Tetrachloro-m -xylene	6.7	5.4	81 %	30 - 150 %
Column	Decachlorobiphenyl	6.7	6.2	93 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.



Quality Control Report Laboratory Control Samples

LCSD LCSD

EPA 8082 Instrument ID: GC-13 Agilent 6890 Instrument ID: GC-13 Agilent 6890 Category: 06-22-11 03:00 QC Batch ID: PB-3761-X Extracted: 06-22-11 03:00 Extracted: 06-25-11 18:00 06-25-11 18:00 Matrix: Soil Cleaned Up: Cleaned Up: Units: 06-27-11 12:19 06-27-11 12:43 ug/Kg Analyzed: Analyzed: Analyst: CRL Analyst: CRL

			LCS					LCS Duplicate							
CAS Number	Analyte	Spiked	Mea	sured	Recovery		Spiked	Measured		Recovery		RPD		QC Limits	
			1st Col	2nd Col	1st Col	2nd Col		1st Col	2nd Col	1st Col	2nd Col	1st Col	2nd Col	Spike	RPD
12674-11-2	Aroclor 1016	170	140	150	87%	88%	170	170	170	102%	101%	17 %	15 %	40 - 140%	30 %
11096-82-5	Aroclor 1260	170	160	160	95%	98%	170	170	170	101%	105%	6 %	7 %	40 - 140%	30 %

QC Surrogate Compound					Surro	gate Rec	covery				QC Limits
Tetrachloro-m -xylene	6.7	5.2	5.3	79%	80%	6.7	6.5	6.6	98%	99%	30 - 150 %
Decachlorobiphenyl	6.7	5.9	6.2	89%	93%	6.7	6.2	6.4	93%	97%	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Report Notations: All calculations performed prior to rounding. Quality Control Limits are defined by the methodology,

or alternatively based upon the historical average recovery plus or minus three standard deviation units.



Quality Control Report Method Blank

 Category:
 EPA Method 8082
 Instrument ID:
 GC-13 Agilent 6890

 QC Batch ID:
 PB-3761-X
 Extracted:
 06-22-11 03:00

Matrix: Soil Cleaned Up: 06-25-11 18:00 Analyzed: 06-27-11 11:55

Analyst: CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	40
11104-28-2	Aroclor 1221	BRL	ug/Kg	40
11141-16-5	Aroclor 1232	BRL	ug/Kg	40
53469-21-9	Aroclor 1242	BRL	ug/Kg	40
12672-29-6	Aroclor 1248	BRL	ug/Kg	40
11097-69-1	Aroclor 1254	BRL	ug/Kg	40
11096-82-5	Aroclor 1260	BRL	ug/Kg	40
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	40
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	40

QC Surrogate	Spiked	Measured	Recovery	QC Limits	
First	First Tetrachloro- <i>m</i> -xylene		6.1	92 %	30 - 150 %
Column	Decachlorobiphenyl	6.7	6.1	91 %	30 - 150 %
Second	Tetrachloro-m -xylene	6.7	6.4	96 %	30 - 150 %
Column	Decachlorobiphenyl	6.7	6.2	94 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.



Certifications and Approvals

Groundwater Analytical maintains environmental laboratory certification in a variety of states. Copies of our current certificates may be obtained from our website:

http://www.groundwateranalytical.com/qualifications.htm

CONNECTICUT

Department of Health Services, PH-0586

Potable Water, Wastewater, Solid Waste and Soil

http://www.ct.gov/dph/lib/dph/environmental health/environmental laboratories/pdf/Out State.pdf

MASSACHUSETTS

Department of Labor,

Department of Environmental Protection, M-MA-103

Potable Water and Non-Potable Water

http://public.dep.state.ma.us/labcert/labcert.aspx

Division of Occupational Safety, AA000195

http://www.mass.gov/dos/forms/la-rpt list aa.pdf

Asbestos Analytical Services, Class A

NEW HAMPSHIRE

Department of Environmental Services, 202708

http://www4.egov.nh.gov/DES/NHELAP

Potable Water, Non-Potable Water, Solid and Chemical Materials

NEW YORK

Department of Health, 11754

http://www.wadsworth.org/labcert/elap/comm.html

Potable Water, Non-Potable Water, Solid and Hazardous Waste

RHODE ISLAND

Department of Health,

Division of Laboratories, LAO00054

http://www.health.ri.gov/labs/outofstatelabs.pdf

Potable and Non-Potable Water Microbiology, Organic and Inorganic Chemistry

U.S. DEPARTMENT OF AGRICULTURE

USDA, Soil Permit, S-53921

Foreign soil import permit

VERMONT

Department of Health, VT-87643

http://healthvermont.gov/enviro/ph_lab/water_test.aspx#cert

Potable Water



Certifications and Approvals

MASSACHUSETTS

Department of Environmental Protection, M-MA-103

Groundwater Analytical maintains MassDEP environmental laboratory certification for only the methods and analytes listed below. Analyses for certified analytes are conducted in accordance with MassDEP certification standards, except as may be specifically noted in the project narrative.

Potable Water (Drinking Water)		Non-Potable Water (Wastewater)	
Analyte	Method	Analyte	Method
1,2-Dibromo-3-Chloropropane	EPA 504.1	Aluminum	EPA 200.8
1,2-Dibromoethane	EPA 504.1	Ammonia-N	Lachat 10-107-06-1-B
Alkalinity, Total	SM 2320-B	Antimony	EPA 200.7
Antimony	EPA 200.8	Antimony	EPA 200.8
Arsenic	EPA 200.8	Arsenic	EPA 200.7
Barium	EPA 200.7	Arsenic	EPA 200.8
Barium	EPA 200.8	Beryllium	EPA 200.7
Beryllium	EPA 200.7	Beryllium	EPA 200.8
Beryllium	EPA 200.8	Beta-BHC	EPA 608
Cadmium	EPA 200.7	Biochemical Oxygen Demand	SM 5210-B
Cadmium	EPA 200.8	Cadmium	EPA 200.7
Calcium	EPA 200.7	Cadmium	EPA 200.8
Chlorine, Residual Free	SM 4500-CL-G	Calcium	EPA 200.7
Chromium	EPA 200.7	Chemical Oxygen Demand	SM 5220-D
Copper	EPA 200.7	Chlordane	EPA 608
Copper	EPA 200.7	Chloride	EPA 300.0
Cyanide, Total	Lachat 10-204-00-1-A	Chlorine, Total Residual	SM 4500-CL-G
E. Coli (Treatment and Distribution)	Enz. Sub. SM 9223	Chromium	EPA 200.7
E. Coli (Treatment and Distribution) E. Coli (Treatment and Distribution)	NA-MUG SM 9222-G	Chromium	EPA 200.7 EPA 200.8
·		Cobalt	EPA 200.8 EPA 200.7
Fecal Coliform (Source Water) Fluoride	MF SM 9222-D		
	EPA 300.0	Cobalt	EPA 200.8
Fluoride	SM 4500-F-C	Copper	EPA 200.7
Haloacetic Acids	EPA 552.2	Copper	EPA 200.8
Heterotrophic Plate Count	SM 9215-B	Cyanide, Total	Lachat 10-204-00-1-A
Lead	EPA 200.8	DDD	EPA 608
Mercury	EPA 245.1	DDE	EPA 608
Nickel	EPA 200.7	DDT	EPA 608
Nickel	EPA 200.8	Delta-BHC	EPA 608
Nitrate-N	EPA 300.0	Dieldrin	EPA 608
Nitrate-N	Lachat 10-107-04-1-C	Endosulfan I	EPA 608
Nitrite-N	EPA 300.0	Endosulfan II	EPA 608
Nitrite-N	Lachat 10-107-04-1-C	Endosulfan Sulfate	EPA 608
pН	SM 4500-H-B	Endrin	EPA 608
Selenium	EPA 200.8	Endrin Aldehyde	EPA 608
Silver	EPA 200.7	Gamma-BHC	EPA 608
Silver	EPA 200.8	Hardness (CaCO3), Total	EPA 200.7
Sodium	EPA 200.7	Hardness (CaCO3), Total	SM 2340-B
Sulfate	EPA 300.0	Heptachlor	EPA 608
Thallium	EPA 200.8	Heptachlor Epoxide	EPA 608
Total Coliform (Treatment and Distribution)	Enz. Sub. SM 9223	Iron	EPA 200.7
Total Coliform (Treatment and Distribution)	MF SM 9222-B	Kjeldahl-N	Lachat 10-107-06-02-D
Total Dissolved Solids	SM 2540-C	Lead	EPA 200.7
Trihalomethanes	EPA 524.2	Magnesium	EPA 200.7
Turbidity	SM 2130-B	Manganese	EPA 200.7
Volatile Organic Compounds	EPA 524.2	Manganese	EPA 200.8
		Mercury	EPA 245.1
Non-Potable Water (Wastewater)		Molybdenum	EPA 200.7
Analyte	Method	Molybdenum	EPA 200.8
		Nickel	EPA 200.7
Aldrin	EPA 608	Nickel	EPA 200.8
Alkalinity, Total	SM 2320-B	Nitrate-N	EPA 300.0
Alpha-BHC	EPA 608	Nitrate-N	Lachat 10-107-04-1-C
Aluminum	EPA 200.7	Non-Filterable Residue	SM 2540-D
		Oil and Grease	EPA 1664



Certifications and Approvals

MASSACHUSETTS

Department of Environmental Protection, M-MA-103

Groundwater Analytical maintains MassDEP environmental laboratory certification for only the methods and analytes listed below. Analyses for certified analytes are conducted in accordance with MassDEP certification standards, except as may be specifically noted in the project narrative.

Non-Potable Water (Wastew

Analyte	Method
Orthophosphate	Lachat 10-115-01-1-A
рН	SM 4500-H-B
Phenolics, Total	EPA 420.4
Phenolics, Total	Lachat 10-210-00-1-B
Phosphorus, Total	Lachat 10-115-01-1-C
Phosphorus, Total	SM 4500-P-B,E
Polychlorinated Biphenyls (Oil)	EPA 600/4-81-045
Polychlorinated Biphenyls (Water)	EPA 608
Potassium	EPA 200.7
Selenium	EPA 200.7
Selenium	EPA 200.8
Silver	EPA 200.7
Sodium	EPA 200.7
Specific Conductivity	SM 2510-B
Strontium	EPA 200.7
Sulfate	EPA 300.0
SVOC-Acid Extractables	EPA 625
SVOC-Base/Neutral Extractables	EPA 625
Thallium	EPA 200.7
Thallium	EPA 200.8
Titanium	EPA 200.7
Total Dissolved Solids	SM 2540-C
Total Organic Carbon	SM 5310-B
Toxaphene	EPA 608
Vanadium	EPA 200.7
Vanadium	EPA 200.8
Volatile Aromatics	EPA 602
Volatile Aromatics	EPA 624
Volatile Halocarbons	EPA 624
Zinc	EPA 200.7
Zinc	EPA 200.8



Groundwater Analytical, Inc. P.O. Box 1200 228 Main Street Buzzards Bay, MA 02532

Telephone (508) 759-4441 FAX (508) 759-4475 www.groundwateranalytical.com

July 19, 2011

Ms. Cindy Campisano Environmental Health & Engineering, Inc. 117 Fourth Avenue Needham, MA 02494

LABORATORY REPORT

Project: **17228**Lab ID: **143394**Received: **07-14-11**

Dear Cindy:

Enclosed are the analytical results for the above referenced project. The project was processed for Rush 48 Hour turnaround.

This letter authorizes the release of the analytical results, and should be considered a part of this report. This report contains a sample receipt report detailing the samples received, a project narrative indicating project changes and non-conformances, a quality control report, and a statement of our state certifications.

The analytical results contained in this report meet all applicable NELAC standards, except as may be specifically noted, or described in the project narrative. The analytical results relate only to the samples received. This report may only be used or reproduced in its entirety.

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Should you have any questions concerning this report, please do not hesitate to contact me.

Sincerely,

Karyn E. Raymond Project Manager

Karyn E. Raymond

KER/ker



Sample Receipt Report

Project:17228Delivery:HandTemperature:5.7°CClient:Environmental Health & Engineering, Inc.Airbill:n/aChain of Custody:PresentLab ID:143394Custody Seal(s):n/a

					·			, , , , ,
Lab ID	Field ID		Matrix	Sampled	Method			Notes
143394-1	125376-SF17		Soil	7/13/11 12:10	EPA 8082 PC	Bs		
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
C2028751	120 mL Amber Glass	Proline	BX39298	None	n/a	n/a	n/a	
Lab ID	Field ID		Matrix	Campled	Method			Notes
			Matrix	Sampled 7/12/11 12:10		D-		Notes
143394-2 Con ID	125377-SF19A Container	Vendor	Soil QC Lot	7/13/11 12:19 Preserv			Chin	
C2028760		Proline	BX39298	None	QC Lot	Prep n/a	Ship n/a	
02020700	120 III.27 III.Dei Glass		57.53230	1,0116		.,,	174	
Lab ID	Field ID		Matrix	Sampled	Method			Notes
143394-3	125378-SF19B		Soil	7/13/11 12:32	EPA 8082 PC	Bs		
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
C2028767	120 mL Amber Glass	Proline	BX39298	None	n/a	n/a	n/a	
Lab ID	Field ID		Matrix	Sampled	Method			Notes
143394-4	125379-SF21A		Soil	7/13/11 12:44		Re		Notes
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
C2028768		Proline	BX39298	None	n/a	n/a	n/a	
Lab ID	Field ID		Matrix	Sampled	Method			Notes
143394-5	125380-SF21B		Soil	7/13/11 12:34	EPA 8082 PC	Bs		
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
C2028759	120 mL Amber Glass	Proline	BX39298	None	n/a	n/a	n/a	
Lab ID	Field ID		Matrix	Sampled	Method			Notes
143394-6	125381-SF22A		Soil	7/13/11 13:23		Rc		i totes
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
C2028753		Proline	BX39298	None	n/a	n/a	n/a	
						1		
Lab ID	Field ID		Matrix	Sampled	Method			Notes
143394-7	125382-SF22A-D		Soil	7/13/11 13:23			,	
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
C2028740	120 mL Amber Glass	Proline	BX39299	None	n/a	n/a	n/a	
Lab ID	Field ID		Matrix	Sampled	Method			Notes
143394-8	125383-SF22B		Soil	7/13/11 13:25		Bs		
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
C2028758	120 mL Amber Glass	Proline	BX39298	None	n/a	n/a	n/a	
11.5	et Lin			0 11	14 (1 1			
Lab ID	Field ID		Matrix	Sampled	Method			Notes
143394-9	125384-SF22B-MS		Soil	7/13/11 13:25			ci :	
C2028739	Container 120 mL Amber Glass	Vendor Proline	QC Lot BX39299	Preserv None	QC Lot	Prep n/a	Ship n/a	
C2020/39	120 IIIE / MIDEL GIASS	Tromie	ロハンフムフラ	NOHE	II/d	ıı/d	11/4	1
Lab ID	Field ID		Matrix	Sampled	Method			Notes
143394-10	125386-SF23A		Soil	7/13/11 13:45	EPA 8082 PC	Bs		
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
C2028761	120 mL Amber Glass	Proline	BX39298	None	n/a	n/a	n/a	
Lab ID	Field ID		Matrix	Sampled	Method			Notes
143394-11	125387-SF23B		Soil	7/13/11 13:39		Re		ivotes
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
	120 mL Amber Glass	Proline	BX39298	None	n/a	n/a	n/a	
					,	, u		ı l



Sample Receipt Report (Continued)

Project:17228Delivery:HandTemperature:5.7°CClient:Environmental Health & Engineering, Inc.Airbill:n/aChain of Custody:PresentLab ID:143394Custody Seal(s):n/a

Lab ID.	143394			La	o keceipi:	07-14-11		Custody Seal(s): n/a
Lab ID	Field ID		Matrix	Sampled	Method			Notes
143394-12	125388-SF7A		Soil	-	EPA 8082 PC	Bs		
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
C2028752	120 mL Amber Glass	Proline	BX39298	None	n/a	n/a	n/a	
Lab ID	E'ald ID		Matrix	Campled	Mathad		<u> </u>	Notes
	Field ID		Matrix	Sampled	Method	D.		Notes
143394-13 Con ID	125385-SF22B-MSD Container	Vendor	Soil QC Lot	7/13/11 13:25			Ship	
C2028741	120 mL Amber Glass	Proline	BX39299	Preserv None	QC Lot	Prep n/a	n/a	
020207 11	120 11127 1111301 13133		27.53233	1,0110	11/4	174	174	
Lab ID	Field ID		Matrix	Sampled	Method			Notes
143394-14	125389-SF7B		Soil	7/13/11 13:52	EPA 8082 PC	Bs	1	
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
C2028750	120 mL Amber Glass	Proline	BX39298	None	n/a	n/a	n/a	
Lab ID	Field ID		Matrix	Sampled	Method			Notes
143394-15	125390-SF33A		Soil	7/13/11 14:18	EPA 8082 PC	Bs		
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
C2028769	120 mL Amber Glass	Proline	BX39298	None	n/a	n/a	n/a	
1-1-10	E:.LUD		NA-1 1	C 1 1	14-d			Neter
Lab ID	Field ID		Matrix	Sampled	Method			Notes
143394-16	125391-SF33B	V 1	Soil	7/13/11 14:20			cl.	
Con ID C2028749	Container 120 mL Amber Glass	Vendor Proline	QC Lot BX39298	Preserv None	QC Lot n/a	Prep n/a	Ship n/a	
C2020743	120 IIIE / IIIIDEI Glass	Home	DA39290	None	II/a	11/4	II/a	<u> </u>
Lab ID	Field ID		Matrix	Sampled	Method			Notes
143394-17	125392-SF53A		Soil	7/13/11 14:43	EPA 8082 PC	Bs		
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
C2028762	120 mL Amber Glass	Proline	BX39298	None	n/a	n/a	n/a	
Lab ID	Field ID		Matrix	Sampled	Method			Notes
143394-18	125393-SF53B		Soil	7/13/11 14:48	EPA 8082 PC	Bs		
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
C2028765	120 mL Amber Glass	Proline	BX39298	None	n/a	n/a	n/a	
L-L ID	t:-IAID		A4-4	6	14-4hl			Neter
Lab ID	Field ID		Matrix	Sampled 7/12/11 14:42	Method	D _a		Notes
143394-19 Con ID	125394-SF53A-MS Container	Vendor	Soil QC Lot	7/13/11 14:43 Preserv	QC Lot	Prep	Ship	
C2028743	120 mL Amber Glass	Proline	BX39299	None	n/a	n/a	n/a	
							1	1
Lab ID	Field ID		Matrix	Sampled	Method			Notes
143394-20	125395-SF53A-MSD		Soil	7/13/11 14:43		Bs		
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
C2028744	120 mL Amber Glass	Proline	BX39299	None	n/a	n/a	n/a	
Lab ID	Field ID		Matrix	Sampled	Method			Notes
143394-21	125396-SF53B-D		Soil	7/13/11 14:48	EPA 8082 PC	Bs		
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
C2028742	120 mL Amber Glass	Proline	BX39299	None	n/a	n/a	n/a	
Lab ID	Field ID		Matrix	Sampled	Method			Notes
143394-22	125397-SF36		Soil	7/13/11 15:25		Bs		11000
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
C2028754	120 mL Amber Glass	Proline	BX39298	None	n/a	n/a	n/a	
L				i				1



Sample Receipt Report (Continued)

Project:17228Delivery:HandTemperature:5.7°CClient:Environmental Health & Engineering, Inc.Airbill:n/aChain of Custody:PresentLab ID:143394Custody Seal(s):n/a

Lab ID	Field ID		Matrix	Sampled	Method			Notes
143394-23	125398-SF38		Soil	7/13/11 15:36	EPA 8082 PC	Bs		
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
C2028757	120 mL Amber Glass	Proline	BX39298	None	n/a	n/a	n/a	



Data Certification

Project: #### Lab ID: 143394
Client: Environmental Health & Engineering, Inc. Received: 07-14-11 10:50

		Mass L	DEP Analytical Protoc	ol Certificatio	n Form						
Proj	n/a										
This	Form provides certif	fications for the follo	wing data set:								
EPA	8082: 14339	94-1,-2,-3,-4,-5,-6,-7,-8	3,-9,-10,-11,-12,-13,-14	4,-15 <i>,</i> -16,-17,-	18,-19,-2	20,-21,-22,-23					
	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	ndwater/Surface ()	Soil/Sediment (X)	Drinking Wate	er ()	Air ()	Other	()			
CA	M Protocol (check all										
	8260 VOC	7470/7471 Hg	Mass DEP VPH	8081 Pestic		7196 Hex Cr	Mass DEP A	NPH .			
	CAM II A () 8270 SVOC	CAM III B () 7010 Metals	CAM IV A () Mass DFP FPH	CAM V B 8151 Herbi	()	CAM VI B ()	CAM IX A TO-15 VOC	()			
	CAM II B ()	CAM III C ()	CAM IV B ()	CAM V C	()	8330 Explosives CAM VIII A ()	CAM IX B	()			
	6010 Metals	6020 Metals	8082 PCB	9012 Cyani	(/	6860 Perchlorate	CAMIAD	()			
	CAM III A ()	CAM III D ()	CAM V A (X)	CAM VI A	()	CAM VIII B ()					
An	- ()		sh F are required for "		Certaint		I.				
A.			nconsistent with those re) in the field or labor								
	within method hold		ie) iii tile lielu or labor	atoratory, and	гргераге	u/anaryzeu	Yes				
	within method hold	ing times:					163				
В.	Were the analytical	method(s) and all ass	sociated QC requireme	ents specified	in the se	lected CAM					
٥.	protocol(s) followed		ociated Qu'requirem	эне эрсеней			Yes				
	1 (-,										
C.	Were all required o	orrective actions and	analytical response ac	tions specified	d in the s	selected CAM					
			l performance standare				Yes				
D.			all the reporting requir								
	Assurance and Qua	lity Control Guidelin	es for the Acquisition a	and Reporting	of Analy	tical Data"?	Yes				
	V/DLL EDLL and ADL	I atla a da a 14/a a		الماد ماد الماد الماد	:£: t						
E.			each method conduc st of significant modifi		gnificant	modification(s)?	n/a				
	(Refer to the marvie	ruai memod(s) for a n	st or significant modifi	cations).			11/4				
F.	Were all applicable	CAM protocol OC a	nd performance standa	ard non-confo	rmances	identified and					
			ding all "No" response				Yes				
Doc	nonces to questions (H and I below are	required for "Presump	tive Certaint	v" etatue						
G.		limits at or below all	CAM reporting limits	specified in th	e selecte	ed CAM					
	protocol(s)?						No				
D.4	- Usan Nista - Data th		Containt II status		1						
			tive Certainty" status ents described in 3								
usa	bility and represent	aliveness requiren	ients described in s	TO CIVIN 40.1	030(Z)(N) and W3C-07-330.					
Н.	Were all OC perfor	mance standards spec	cified in the CAM prot	ocol(s) achieve	ed?		NO				
I.	Were results report	ed for the complete a	nalyte list specified in	the selected C	CAM pro	tocol(s)?	Yes				
ΔII	All negative responses must be addressed in an attached laboratory narrative.										
	-										
I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.											
		/ - 1									
C:~	hatura. K	aryn E. Rayman	d	Position:	Droiss	t Managar					
sign	nature:	1.0	Posit		Project Manager						
Prin	ited Name:	Karyn E. Raymond		Date:	07-19-	11					



Field ID: 125376-SF17 Matrix: Soil

Project: 17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 143394-01 QC Batch ID: PB-3770-X

Sampled: 07-13-11 12:10 Instrument ID: GC-13 Agilent 6890

07-14-11 10:50 Received: Sample Weight: 30 g 07-14-11 21:00 Extracted: Final Volume: 1 mL 07-15-11 22:00 Cleaned Up: Percent Solids: 74 07-16-11 03:53 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration Notes		Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	54	
11104-28-2	Aroclor 1221	BRL	ug/Kg	54	
11141-16-5	Aroclor 1232	BRL		ug/Kg	54
53469-21-9	Aroclor 1242	BRL		ug/Kg	54
12672-29-6	Aroclor 1248	BRL		ug/Kg	54
11097-69-1	Aroclor 1254	140	2C (130)*	ug/Kg	54
11096-82-5	Aroclor 1260	BRL		ug/Kg	54
37324-23-5	Aroclor 1262 [†]	BRL		ug/Kg	54
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	54

QC Surrogate	Spiked	Measured	Recovery	QC Limits	
First	Tetrachloro-m -xylene	9	8	85 %	30 - 150 %
Column	Decachlorobiphenyl	9	6	70 %	30 - 150 %
Second	Tetrachloro-m -xylene	9	10	109 %	30 - 150 %
Column	Decachlorobiphenyl	9	7	75 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

Report Notations:

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.



Field ID: 125377-SF19A Matrix: Soil

Project: 17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 143394-02 QC Batch ID: PB-3770-X

Sampled: 07-13-11 12:19 Instrument ID: GC-13 Agilent 6890

07-14-11 10:50 Received: Sample Weight: 30 g 07-14-11 21:00 Extracted: Final Volume: 1 mL 07-15-11 22:00 Cleaned Up: 77 Percent Solids: 07-16-11 04:17 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	52
11104-28-2	Aroclor 1221	BRL	ug/Kg	52
11141-16-5	Aroclor 1232	BRL	ug/Kg	52
53469-21-9	Aroclor 1242	BRL	ug/Kg	52
12672-29-6	Aroclor 1248	BRL	ug/Kg	52
11097-69-1	Aroclor 1254	74 1C (59)*	ug/Kg	52
11096-82-5	Aroclor 1260	BRL	ug/Kg	52
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	52
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	52

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	9	8	94 %	30 - 150 %
Column	Decachlorobiphenyl	9	6	65 %	30 - 150 %
Second	Tetrachloro-m -xylene	9	9	104 %	30 - 150 %
Column	Decachlorobiphenyl	9	6	69 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 1C Concentration reported from first column.



Field ID: 125378-SF19B Matrix: Soil

Project: 17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 143394-03 QC Batch ID: PB-3770-X

Sampled: 07-13-11 12:32 Instrument ID: GC-13 Agilent 6890

07-14-11 10:50 Received: Sample Weight: 30 g 07-14-11 21:00 Extracted: Final Volume: 1 mL 07-15-11 22:00 Cleaned Up: Percent Solids: 88 07-16-11 04:41 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	45
11104-28-2	Aroclor 1221	BRL	ug/Kg	45
11141-16-5	Aroclor 1232	BRL	ug/Kg	45
53469-21-9	Aroclor 1242	BRL	ug/Kg	45
12672-29-6	Aroclor 1248	BRL	ug/Kg	45
11097-69-1	Aroclor 1254	250 1C (220)* ug/Kg	45
11096-82-5	Aroclor 1260	BRL	ug/Kg	45
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	45
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	45

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	8	6	81 %	30 - 150 %
Column	Decachlorobiphenyl	8	5	70 %	30 - 150 %
Second	Tetrachloro-m-xylene	8	7	94 %	30 - 150 %
Column	Decachlorobiphenyl	8	5	71 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 1C Concentration reported from first column.



Field ID: 125379-SF21A Matrix: Soil

Project: 17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 143394-04 QC Batch ID: PB-3770-X

Sampled: 07-13-11 12:44 Instrument ID: GC-13 Agilent 6890

Received: 07-14-11 10:50 Sample Weight: 31 g 07-14-11 21:00 Extracted: Final Volume: 1 mL 07-15-11 22:00 Cleaned Up: Percent Solids: 87 07-16-11 05:04 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	45
11104-28-2	Aroclor 1221	BRL	ug/Kg	45
11141-16-5	Aroclor 1232	BRL	ug/Kg	45
53469-21-9	Aroclor 1242	BRL	ug/Kg	45
12672-29-6	Aroclor 1248	BRL	ug/Kg	45
11097-69-1	Aroclor 1254	BRL	ug/Kg	45
11096-82-5	Aroclor 1260	BRL	ug/Kg	45
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	45
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	45

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	8	6	74 %	30 - 150 %
Column	Decachlorobiphenyl	8	4	53 %	30 - 150 %
Second	Tetrachloro-m-xylene	8	6	82 %	30 - 150 %
Column	Decachlorobiphenyl	8	4	55 %	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on a dry weight basis.

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.



Field ID: 125380-SF21B Matrix: Soil

Project: 17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 143394-05 QC Batch ID: PB-3770-X

Sampled: 07-13-11 12:34 Instrument ID: GC-13 Agilent 6890

07-14-11 10:50 Received: Sample Weight: 30 g 07-14-11 21:00 Extracted: Final Volume: 1 mL 07-15-11 22:00 Cleaned Up: 95 Percent Solids: 07-16-11 05:28 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	42
11104-28-2	Aroclor 1221	BRL	ug/Kg	42
11141-16-5	Aroclor 1232	BRL	ug/Kg	42
53469-21-9	Aroclor 1242	BRL	ug/Kg	42
12672-29-6	Aroclor 1248	BRL	ug/Kg	42
11097-69-1	Aroclor 1254	63 1C (60)	* ug/Kg	42
11096-82-5	Aroclor 1260	BRL	ug/Kg	42
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	42
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	42

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	7	5	67 %	30 - 150 %
Column	Decachlorobiphenyl	7	4	58 %	30 - 150 %
Second	Tetrachloro-m-xylene	7	5	71 %	30 - 150 %
Column	Decachlorobiphenyl	7	4	58 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 1C Concentration reported from first column.



Field ID: 125381-SF22A Matrix: Soil

Project: 17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 143394-06 QC Batch ID: PB-3770-X

Sampled: 07-13-11 13:23 Instrument ID: GC-13 Agilent 6890

Received: 07-14-11 10:50 Sample Weight: 31 g 07-14-11 21:00 Extracted: Final Volume: 1 mL 07-15-11 22:00 Cleaned Up: Percent Solids: 87 07-16-11 05:51 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	45
11104-28-2	Aroclor 1221	BRL	ug/Kg	45
11141-16-5	Aroclor 1232	BRL	ug/Kg	45
53469-21-9	Aroclor 1242	BRL	ug/Kg	45
12672-29-6	Aroclor 1248	BRL	ug/Kg	45
11097-69-1	Aroclor 1254	BRL	ug/Kg	45
11096-82-5	Aroclor 1260	BRL	ug/Kg	45
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	45
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	45

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	8	7	91 %	30 - 150 %
Column	Decachlorobiphenyl	8	5	69 %	30 - 150 %
Second	Tetrachloro-m-xylene	8	7	96 %	30 - 150 %
Column	Decachlorobiphenyl	8	5	65 %	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on a dry weight basis.

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.



Field ID: 125382-SF22A-D Matrix: Soil

Project: 17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 143394-07 QC Batch ID: PB-3770-X

Sampled: 07-13-11 13:23 Instrument ID: GC-13 Agilent 6890

Received: 07-14-11 10:50 Sample Weight: 31 g 07-14-11 21:00 Extracted: Final Volume: 1 mL 07-15-11 22:00 Cleaned Up: Percent Solids: 86 07-16-11 06:15 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	46
11104-28-2	Aroclor 1221	BRL	ug/Kg	46
11141-16-5	Aroclor 1232	BRL	ug/Kg	46
53469-21-9	Aroclor 1242	BRL	ug/Kg	46
12672-29-6	Aroclor 1248	BRL	ug/Kg	46
11097-69-1	Aroclor 1254	BRL	ug/Kg	46
11096-82-5	Aroclor 1260	BRL	ug/Kg	46
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	46
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	46

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	8	6	76 %	30 - 150 %
Column	Decachlorobiphenyl	8	5	64 %	30 - 150 %
Second	Tetrachloro-m -xylene	8	6	84 %	30 - 150 %
Column	Decachlorobiphenyl	8	5	63 %	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on a dry weight basis.

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.



Field ID: 125383-SF22B Matrix: Soil

Project: 17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 143394-08 QC Batch ID: PB-3770-X

Sampled: 07-13-11 13:25 Instrument ID: GC-13 Agilent 6890

07-14-11 10:50 Received: Sample Weight: 30 g Extracted: 07-14-11 21:00 Final Volume: 1 mL Cleaned Up: 07-15-11 22:00 95 Percent Solids: 07-16-11 07:49 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	42
11104-28-2	Aroclor 1221	BRL	ug/Kg	42
11141-16-5	Aroclor 1232	BRL	ug/Kg	42
53469-21-9	Aroclor 1242	BRL	ug/Kg	42
12672-29-6	Aroclor 1248	920 e 2C (610)*	ug/Kg	42
11097-69-1	Aroclor 1254	520 e 1C (410)*	ug/Kg	42
11096-82-5	Aroclor 1260	BRL	ug/Kg	42
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	42
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	42

QC Surrogate Co	Spiked	Measured	Recovery	QC Limits	
First	Tetrachloro-m -xylene	7	7	95 %	30 - 150 %
Column	Decachlorobiphenyl	7	5	74 %	30 - 150 %
Second	Tetrachloro-m -xylene	7	7	104 %	30 - 150 %
Column	Decachlorobiphenyl	7	5	73 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 1C Concentration reported from first column.
- 2C Concentration reported from second column.
- e Indicates concentration exceeded calibration range for the analyte.



Field ID: 125383-SF22B Matrix: Soil

Project: 17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 143394-08RA1 QC Batch ID: PB-3770-X

Sampled: 07-13-11 13:25 Instrument ID: GC-13 Agilent 6890

07-14-11 10:50 Received: Sample Weight: 30 g 07-14-11 21:00 Extracted: Final Volume: 1 mL 07-15-11 22:00 Cleaned Up: 95 Percent Solids: 07-18-11 10:49 Analyzed: Dilution Factor: 5

Analyst: CRL

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	210
11104-28-2	Aroclor 1221	BRL		ug/Kg	210
11141-16-5	Aroclor 1232	BRL		ug/Kg	210
53469-21-9	Aroclor 1242	BRL		ug/Kg	210
12672-29-6	Aroclor 1248	1000	2C (630)*	ug/Kg	210
11097-69-1	Aroclor 1254	430	2C (420)*	ug/Kg	210
11096-82-5	Aroclor 1260	BRL		ug/Kg	210
37324-23-5	Aroclor 1262 [†]	BRL		ug/Kg	210
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	210

QC Surrogate	Spiked	Measured	Recovery	QC Limits	
First	Tetrachloro-m -xylene	7	7	96 %	30 - 150 %
Column	Decachlorobiphenyl	7	5	74 %	30 - 150 %
Second	Tetrachloro-m -xylene	7	8	111 %	30 - 150 %
Column	Decachlorobiphenyl	7	5	72 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.



Matrix Spike and Matrix Spike Duplicate EPA Method 8082

			Parent Sample	Matrix Spike	Spike Duplicate
Field ID:	12583-SF-22B	Laboratory ID:	143394-8	143394-9	143394-13
Project:	17228	Sampled:	07-13-11 13:25	07-13-11 13:25	07-13-11 13:25
Client:	Environmental Health & Engineering	Received:	07-14-11 10:50	07-14-11 10:50	07-14-11 10:50
Matrix:	Soil	Extracted:	07-14-11 21:00	07-14-11 21:00	07-14-11 21:00
Container:	250 mL Glass	Cleaned Up:	07-15-11 22:00	07-15-11 22:00	07-15-11 22:00
Preservation:	Cool	Analyzed:	07-16-11 07:49	07-16-11 08:13	07-16-11 08:37
		Analyst:	CRL	CRL	CRL
		QC Batch ID:	PB-3770-X	PB-3770-X	PB-3770-X
		Instrument ID:	GC-13 HP 6890	GC-6 HP 5890	GC-6 HP 5890
		Sample Weight:	30g	30g	30g
		Final Volume:	1 mL	1 mL	1 mL
		Percent Solids:	95	94	95
		Dilution Factor	1	1	1

CAS Number	Analyte	Unspiked	MS	MS Mea	sured	MS Re	covery	MSD	MSD Me	asured	MSD I	Recovery	i	RPD	QC Lim
		Sample	Spiked	1st Col	2nd Col	1st Col	2nd Col	Spiked	1st Col	2nd Col	1st Col	2nd Col	1st Col	2nd Col	Spike
		(ug/Kg)	(ug/Kg)	(ug/Kg)	(ug/Kg)			(ug/Kg)	(ug/Kg)	(ug/Kg)					
12674-11-2	Aroclor 1016	BRL	170	360	370	210 % s	214 % s	170	420	400	248 % s	234 % s	16 %	8 %	40 - 140%
11096-82-5	Aroclor 1260	BRL	170	250	380	147 % s	219 % s	170	270	390	157 % s	229 % s	6 %	3 %	40 - 140%

QC Surrogate Compound	Surrogate Recovery							QC Lin					
Tetrachloro-m-xylene	96%	7	6	7	81%	97%	7	7	6	99%	93%		30 - 150
Decachlorobiphenyl	74%	7	4	5	63%	67%	7	5	5	67%	68%		30 - 150

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3545. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on a dry weight basis.

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

s Recovery outside recommended limits due to high concentration of analyte native to sample.



Field ID: 125386-SF23A Matrix: Soil

Project: 17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 143394-10 QC Batch ID: PB-3770-X

Sampled: 07-13-11 13:45 Instrument ID: GC-13 Agilent 6890

07-14-11 10:50 Received: Sample Weight: 30 g 07-14-11 21:00 Extracted: Final Volume: 1 mL 07-15-11 22:00 Cleaned Up: Percent Solids: 88 07-16-11 09:00 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	45
11104-28-2	Aroclor 1221	BRL	ug/Kg	45
11141-16-5	Aroclor 1232	BRL	ug/Kg	45
53469-21-9	Aroclor 1242	BRL	ug/Kg	45
12672-29-6	Aroclor 1248	BRL	ug/Kg	45
11097-69-1	Aroclor 1254	70 1C (53)*	ug/Kg	45
11096-82-5	Aroclor 1260	BRL	ug/Kg	45
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	45
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	45

QC Surrogate (Spiked	Measured	Recovery	QC Limits	
First	Tetrachloro-m-xylene	8	8	101 %	30 - 150 %
Column	Decachlorobiphenyl	8	6	73 %	30 - 150 %
Second	Tetrachloro-m-xylene	8	8	108 %	30 - 150 %
Column	Decachlorobiphenyl	8	6	73 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 1C Concentration reported from first column.



Field ID: 125387-SF23B Matrix: Soil

Project: 17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 143394-11 QC Batch ID: PB-3770-X

Sampled: 07-13-11 13:39 Instrument ID: GC-13 Agilent 6890

07-14-11 10:50 Received: Sample Weight: 30 g 07-14-11 21:00 Extracted: Final Volume: 1 mL 07-15-11 22:00 Cleaned Up: 96 Percent Solids: 07-16-11 09:24 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	41
11104-28-2	Aroclor 1221	BRL		ug/Kg	41
11141-16-5	Aroclor 1232	BRL		ug/Kg	41
53469-21-9	Aroclor 1242	BRL		ug/Kg	41
12672-29-6	Aroclor 1248	300	2C (270)*	ug/Kg	41
11097-69-1	Aroclor 1254	220	1C (170)*	ug/Kg	41
11096-82-5	Aroclor 1260	BRL		ug/Kg	41
37324-23-5	Aroclor 1262 [†]	BRL		ug/Kg	41
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	41

QC Surrogate	Spiked	Measured	Recovery	QC Limits	
First	Tetrachloro-m -xylene	7	6	81 %	30 - 150 %
Column	Decachlorobiphenyl	7	5	68 %	30 - 150 %
Second	Tetrachloro-m -xylene	7	6	89 %	30 - 150 %
Column	Decachlorobiphenyl	7	5	73 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 1C Concentration reported from first column.
- 2C Concentration reported from second column.



Field ID: 125388-SF7A Matrix: Soil

Project: 17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 143394-12 QC Batch ID: PB-3770-X

Sampled: 07-13-11 14:00 Instrument ID: GC-13 Agilent 6890

07-14-11 10:50 Received: Sample Weight: 31 g 07-14-11 21:00 Extracted: Final Volume: 1 mL 07-15-11 22:00 Cleaned Up: 95 Percent Solids: 07-16-11 09:48 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	41
11104-28-2	Aroclor 1221	BRL	ug/Kg	41
11141-16-5	Aroclor 1232	BRL	ug/Kg	41
53469-21-9	Aroclor 1242	BRL	ug/Kg	41
12672-29-6	Aroclor 1248	BRL	ug/Kg	41
11097-69-1	Aroclor 1254	97 1C (80)*	ug/Kg	41
11096-82-5	Aroclor 1260	BRL	ug/Kg	41
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	41
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	41

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	7	6	89 %	30 - 150 %
Column	Decachlorobiphenyl	7	5	74 %	30 - 150 %
Second	Tetrachloro-m -xylene	7	7	95 %	30 - 150 %
Column	Decachlorobiphenyl	7	5	73 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 1C Concentration reported from first column.



Field ID: 125389-SF7B Matrix: Soil

Project: 17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 143394-14 QC Batch ID: PB-3770-X

Sampled: 07-13-11 13:52 Instrument ID: GC-13 Agilent 6890

07-14-11 10:50 Received: Sample Weight: 30 g 07-14-11 21:00 Extracted: Final Volume: 1 mL 07-15-11 22:00 Cleaned Up: Percent Solids: 98 07-16-11 10:11 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	41
11104-28-2	Aroclor 1221	BRL	ug/Kg	41
11141-16-5	Aroclor 1232	BRL	ug/Kg	41
53469-21-9	Aroclor 1242	BRL	ug/Kg	41
12672-29-6	Aroclor 1248	BRL	ug/Kg	41
11097-69-1	Aroclor 1254	100 1C (75)*	ug/Kg	41
11096-82-5	Aroclor 1260	BRL	ug/Kg	41
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	41
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	41

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	7	6	81 %	30 - 150 %
Column	Decachlorobiphenyl	7	5	74 %	30 - 150 %
Second	Tetrachloro-m-xylene	7	6	92 %	30 - 150 %
Column	Decachlorobiphenyl	7	5	75 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 1C Concentration reported from first column.



Field ID: 125390-SF33A Matrix: Soil

Project: 17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 143394-15 QC Batch ID: PB-3770-X

Sampled: 07-13-11 14:18 Instrument ID: GC-13 Agilent 6890

07-14-11 10:50 Received: Sample Weight: 30 g Extracted: 07-14-11 21:00 Final Volume: 1 mL Cleaned Up: 07-15-11 22:00 Percent Solids: 84 07-16-11 10:35 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	47
11104-28-2	Aroclor 1221	BRL	ug/Kg	47
11141-16-5	Aroclor 1232	BRL	ug/Kg	47
53469-21-9	Aroclor 1242	BRL	ug/Kg	47
12672-29-6	Aroclor 1248	BRL	ug/Kg	47
11097-69-1	Aroclor 1254	1700 e 2C (1400)*	ug/Kg	47
11096-82-5	Aroclor 1260	BRL	ug/Kg	47
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	47
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	47

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	8	6	78 %	30 - 150 %
Column	Decachlorobiphenyl	8	5	60 %	30 - 150 %
Second	Tetrachloro-m -xylene	8	7	84 %	30 - 150 %
Column	Decachlorobiphenyl	8	5	62 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.
- e Indicates concentration exceeded calibration range for the analyte.



Field ID: 125390-SF33A Matrix: Soil

Project: 17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 143394-15RA1 QC Batch ID: PB-3770-X

Sampled: 07-13-11 14:18 Instrument ID: GC-13 Agilent 6890

07-14-11 10:50 Received: Sample Weight: 30 g 07-14-11 21:00 Extracted: Final Volume: 1 mL 07-15-11 22:00 Cleaned Up: Percent Solids: 84 07-18-11 11:12 Analyzed: Dilution Factor: 10

Analyst: CRL

CAS Number	Analyte	Concentration Notes		Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	470	
11104-28-2	Aroclor 1221	BRL		ug/Kg	470
11141-16-5	Aroclor 1232	BRL		ug/Kg	470
53469-21-9	Aroclor 1242	BRL	ug/Kg	470	
12672-29-6	Aroclor 1248	BRL		ug/Kg	470
11097-69-1	Aroclor 1254	1400	2C (1300)*	ug/Kg	470
11096-82-5	Aroclor 1260	BRL		ug/Kg	470
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	470	
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	470

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	8	7	93 %	30 - 150 %
Column	Decachlorobiphenyl	8	5	57 %	30 - 150 %
Second	Tetrachloro-m -xylene	8	8	102 %	30 - 150 %
Column	Decachlorobiphenyl	8	5	60 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 2C Concentration reported from second column.



Field ID: 125391-SF33B Matrix: Soil

Project: 17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 143394-16 QC Batch ID: PB-3770-X

Sampled: 07-13-11 14:20 Instrument ID: GC-13 Agilent 6890

07-14-11 10:50 Received: Sample Weight: 31 g Extracted: 07-14-11 21:00 Final Volume: 1 mL Cleaned Up: 07-15-11 22:00 93 Percent Solids: 07-16-11 10:59 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	42
11104-28-2	Aroclor 1221	BRL	ug/Kg	42
11141-16-5	Aroclor 1232	BRL	ug/Kg	42
53469-21-9	Aroclor 1242	BRL	ug/Kg	42
12672-29-6	Aroclor 1248	BRL	ug/Kg	42
11097-69-1	Aroclor 1254	920 e 2C (830)*	ug/Kg	42
11096-82-5	Aroclor 1260	BRL	ug/Kg	42
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	42
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	42

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	7	6	79 %	30 - 150 %
Column	Decachlorobiphenyl	7	5	69 %	30 - 150 %
Second	Tetrachloro-m -xylene	7	6	88 %	30 - 150 %
Column	Decachlorobiphenyl	7	5	76 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.
- e Indicates concentration exceeded calibration range for the analyte.



Field ID: 125391-SF33B Matrix: Soil

Project: 17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 143394-16RA1 QC Batch ID: PB-3770-X

Sampled: 07-13-11 14:20 Instrument ID: GC-13 Agilent 6890

07-14-11 10:50 Received: Sample Weight: 31 g 07-14-11 21:00 Extracted: Final Volume: 1 mL Cleaned Up: 07-15-11 22:00 93 Percent Solids: 07-18-11 11:36 Analyzed: Dilution Factor: 5

Analyst: CRL

CAS Number	Analyte	Concentration Notes		Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	210	
11104-28-2	Aroclor 1221	BRL		ug/Kg	210
11141-16-5	Aroclor 1232	BRL		ug/Kg	210
53469-21-9	Aroclor 1242	BRL	ug/Kg	210	
12672-29-6	Aroclor 1248	BRL		ug/Kg	210
11097-69-1	Aroclor 1254	900	2C (850)*	ug/Kg	210
11096-82-5	Aroclor 1260	BRL	ug/Kg	210	
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	210	
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	210

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	7	7	94 %	30 - 150 %
Column	Decachlorobiphenyl	7	5	68 %	30 - 150 %
Second	Tetrachloro-m -xylene	7	7	103 %	30 - 150 %
Column	Decachlorobiphenyl	7	5	71 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 2C Concentration reported from second column.



Field ID: 125392-SF53A Matrix: Soil

Project: 17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 143394-17 QC Batch ID: PB-3771-X

Sampled: 07-13-11 14:43 Instrument ID: GC-13 Agilent 6890

07-14-11 10:50 Received: Sample Weight: 31 g Extracted: 07-14-11 21:30 Final Volume: 1 mL Cleaned Up: 07-15-11 20:00 97 Percent Solids: 07-16-11 14:32 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration Notes		Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	40
11104-28-2	Aroclor 1221	BRL		ug/Kg	40
11141-16-5	Aroclor 1232	BRL		ug/Kg	40
53469-21-9	Aroclor 1242	BRL	ug/Kg	40	
12672-29-6	Aroclor 1248	BRL		ug/Kg	40
11097-69-1	Aroclor 1254	100	1C (95)*	ug/Kg	40
11096-82-5	Aroclor 1260	BRL	ug/Kg	40	
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	40	
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	40

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	7	6	94 %	30 - 150 %
Column	Decachlorobiphenyl	7	4	59 %	30 - 150 %
Second	Tetrachloro-m -xylene	7	7	104 %	30 - 150 %
Column	Decachlorobiphenyl	7	4	66 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 1C Concentration reported from first column.



Matrix Spike and Matrix Spike Duplicate EPA Method 8082

			Parent Sample	Matrix Spike	Spike Duplicate
Field ID:	12583-SF-53A	Laboratory ID:	143394-17	143394-19	143394-20
Project:	17228	Sampled:	07-13-11 14:48	07-13-11 13:25	07-13-11 13:25
Client:	Environmental Health & Engineering	Received:	07-14-11 10:50	07-14-11 10:50	07-14-11 10:50
Matrix:	Soil	Extracted:	07-14-11 21:00	07-14-11 21:00	07-14-11 21:00
Container:	250 mL Glass	Cleaned Up:	07-15-11 22:00	07-15-11 22:00	07-15-11 22:00
Preservation:	Cool	Analyzed:	07-16-11 14:32	07-16-11 15:19	07-16-11 15:43
		Analyst:	CRL	CRL	CRL
		QC Batch ID:	PB-3770-X	PB-3770-X	PB-3770-X
		Instrument ID:	GC-13 HP 6890	GC-6 HP 5890	GC-6 HP 5890
		Sample Weight:	30g	30g	30g
		Final Volume:	1 mL	1 mL	1 mL
		Percent Solids:	98	94	95
		Dilution Factor:	1	1	1

CAS Number	Analyte	Unspiked	MS	MS Mea	sured	MS Re	covery	MSD	MSD Me	asured	MSD	Recovery	F	RPD	QC Lim
		Sample	Spiked	1st Col	2nd Col	1st Col	2nd Col	Spiked	1st Col	2nd Col	1st Col	2nd Col	1st Col	2nd Col	Spike
		(ug/Kg)	(ug/Kg)	(ug/Kg)	(ug/Kg)			(ug/Kg)	(ug/Kg)	(ug/Kg)					
12674-11-2	Aroclor 1016	BRL	170	210	210	120 %	124 %	170	170	190	101 %	109 %	18 %	13 %	40 - 140%
11096-82-5	Aroclor 1260	BRL	170	240	300	137 %	176 % q	170	200	270	119 %	157 % q	15 %	12 %	40 - 140%

QC Surrogate Compound	Surrogate Recovery								QC Lin				
Tetrachloro-m-xylene	94%	7	7	8	107%	116%	7	6	7	84%	97%		30 - 150
Decachlorobiphenyl	59%	7	4	5	61%	71%	7	3	4	50%	58%		30 - 150

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3545. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on a dry weight basis.

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

q Recovery outside recommended limits.



Field ID: 125393-SF53B Matrix: Soil

Project: 17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 143394-18 QC Batch ID: PB-3771-X

Sampled: 07-13-11 14:48 Instrument ID: GC-13 Agilent 6890

Received: 07-14-11 10:50 Sample Weight: 30 g 07-14-11 21:30 Extracted: Final Volume: 1 mL 07-15-11 20:00 Cleaned Up: Percent Solids: 98 07-16-11 14:55 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	41
11104-28-2	Aroclor 1221	BRL	ug/Kg	41
11141-16-5	Aroclor 1232	BRL	ug/Kg	41
53469-21-9	Aroclor 1242	BRL	ug/Kg	41
12672-29-6	Aroclor 1248	BRL	ug/Kg	41
11097-69-1	Aroclor 1254	BRL	ug/Kg	41
11096-82-5	Aroclor 1260	BRL	ug/Kg	41
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	41
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	41

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	7	6	89 %	30 - 150 %
Column	Decachlorobiphenyl	7	4	57 %	30 - 150 %
Second	Tetrachloro-m -xylene	7	7	99 %	30 - 150 %
Column	Decachlorobiphenyl	7	4	63 %	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on a dry weight basis.

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.



Field ID: 125396-SF53B-D Matrix: Soil

Project: 17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 143394-21 QC Batch ID: PB-3771-X

Sampled: 07-13-11 14:48 Instrument ID: GC-13 Agilent 6890

Received: 07-14-11 10:50 Sample Weight: 31 g 07-14-11 21:30 Extracted: Final Volume: 1 mL 07-15-11 20:00 Cleaned Up: Percent Solids: 98 07-16-11 16:06 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	40
11104-28-2	Aroclor 1221	BRL	ug/Kg	40
11141-16-5	Aroclor 1232	BRL	ug/Kg	40
53469-21-9	Aroclor 1242	BRL	ug/Kg	40
12672-29-6	Aroclor 1248	BRL	ug/Kg	40
11097-69-1	Aroclor 1254	BRL	ug/Kg	40
11096-82-5	Aroclor 1260	BRL	ug/Kg	40
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	40
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	40

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	7	6	92 %	30 - 150 %
Column	Decachlorobiphenyl	7	4	59 %	30 - 150 %
Second	Tetrachloro-m -xylene	7	7	104 %	30 - 150 %
Column	Decachlorobiphenyl	7	5	67 %	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on a dry weight basis.

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.



Field ID: 125397-SF36 Matrix: Soil

Project: 17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 143394-22 QC Batch ID: PB-3770-X

Sampled: 07-13-11 15:25 Instrument ID: GC-13 Agilent 6890

07-14-11 10:50 Received: Sample Weight: 30 g 07-14-11 21:00 Extracted: Final Volume: 1 mL 07-15-11 22:00 Cleaned Up: Percent Solids: 74 07-16-11 11:22 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	53
11104-28-2	Aroclor 1221	BRL	ug/Kg	53
11141-16-5	Aroclor 1232	BRL	ug/Kg	53
53469-21-9	Aroclor 1242	BRL	ug/Kg	53
12672-29-6	Aroclor 1248	BRL	ug/Kg	53
11097-69-1	Aroclor 1254	270 1C (270)*	ug/Kg	53
11096-82-5	Aroclor 1260	BRL	ug/Kg	53
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	53
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	53

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	9	7	81 %	30 - 150 %
Column	Decachlorobiphenyl	9	6	73 %	30 - 150 %
Second	Tetrachloro-m-xylene	9	8	96 %	30 - 150 %
Column	Decachlorobiphenyl	9	7	80 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 1C Concentration reported from first column.



Field ID: 125398-SF38 Matrix: Soil

Project: 17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 143394-23 QC Batch ID: PB-3770-X

Sampled: 07-13-11 15:36 Instrument ID: GC-13 Agilent 6890

07-14-11 10:50 Received: Sample Weight: 30 g Extracted: 07-14-11 21:00 Final Volume: 1 mL Cleaned Up: 07-15-11 22:00 Percent Solids: 64 07-16-11 11:46 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	63
11104-28-2	Aroclor 1221	BRL	ug/Kg	63
11141-16-5	Aroclor 1232	BRL	ug/Kg	63
53469-21-9	Aroclor 1242	BRL	ug/Kg	63
12672-29-6	Aroclor 1248	BRL	ug/Kg	63
11097-69-1	Aroclor 1254	430 e 1C (410)*	ug/Kg	63
11096-82-5	Aroclor 1260	BRL	ug/Kg	63
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	63
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	63

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	10	7	66 %	30 - 150 %
Column	Decachlorobiphenyl	10	7	70 %	30 - 150 %
Second	Tetrachloro-m -xylene	10	10	91 %	30 - 150 %
Column	Decachlorobiphenyl	10	7	69 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 1C Concentration reported from first column.
- e Indicates concentration exceeded calibration range for the analyte.



Field ID: 125398-SF38 Matrix: Soil

Project: 17228 Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 143394-23RA1 QC Batch ID: PB-3770-X

Sampled: 07-13-11 15:36 Instrument ID: GC-13 Agilent 6890

07-14-11 10:50 Received: Sample Weight: 30 g 07-14-11 21:00 Extracted: Final Volume: 1 mL 07-15-11 22:00 Cleaned Up: Percent Solids: 64 07-18-11 13:20 Analyzed: Dilution Factor: 2

Analyst: CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	130
11104-28-2	Aroclor 1221	BRL	ug/Kg	130
11141-16-5	Aroclor 1232	BRL	ug/Kg	130
53469-21-9	Aroclor 1242	BRL	ug/Kg	130
12672-29-6	Aroclor 1248	BRL	ug/Kg	130
11097-69-1	Aroclor 1254	430 2C (420)*	ug/Kg	130
11096-82-5	Aroclor 1260	BRL	ug/Kg	130
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	130
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	130

QC Surrogate C	Compound	Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	10	10	94 %	30 - 150 %
Column	Decachlorobiphenyl	10	8	73 %	30 - 150 %
Second	Tetrachloro-m-xylene	10	10	100 %	30 - 150 %
Column	Decachlorobiphenyl	10	7	66 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on a dry weight basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.



Project Narrative

Project: 17228 Lab ID: 143394

Client: Environmental Health & Engineering, Inc. Received: 07-14-11 10:50

A. Documentation and Client Communication

The following documentation discrepancies, and client changes or amendments were noted for this project:

1. No documentation discrepancies, changes, or amendments were noted.

B. Method Modifications, Non-Conformances and Observations

The sample(s) in this project were analyzed by the references analytical method(s), and no method modifications, non-conformances or analytical issues were noted, except as indicated below:

- 1. EPA 8082 Non-conformance: Samples 143394-08, -15, -16, -23. Reported results for selected analyte exceeded the high standard of the associated calibration curve. Results are estimated. Sample was reanalyzed and reported with all analytes within calibration.
- 2. EPA 8082 Note: Samples 143394-08,- 15, -16, -23. Sample were diluted prior to analysis. Dilution was required to keep all target analytes within calibration.
- 3. EPA 8082 Non-conformance: Sample 143394-8. Matrix spike recovery was above recommend limits due to high concentration of analyte native to the sample.
- 4. EPA 8082 Note: Sample 143394-17. Matrix spike recovery was above recommend limits on the second column. Recovery was within criteria on the primary column.

GROUNDWATER ANALYTICAL	228 Main Str Buzzards Ba Telephone (5 www.grounds	y, MA 02 08) 759-	532 4441 • F/	AX (508) 759-	4475	- 75.75.71	IAIN-C			The second second	ECORD																	
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_	EH+	F				☐ STAI	NDARD ((10 Busi	ness Day	ys)			Volat				est/Herb/l tractable	PCBs Vol.	Metal	s		eum Hydroca TPH	arbon Vol TP	Haz. Waste	6	leneral Ch	emistry	Oth
17228	Address:	th	AV	e		RUS	requires R	- by M	on 7	18 [11]		OPTIONS	III pago Au		D Acid Only D B/N Only				Specify For Water Samples	☐ Dissolved				rbicides	Hilly, Reactivity			
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SAMPLE IDENTIFICATION	UNDWATER KING WATER TEWATER WATER	RGANIC LIQUID	Type 88	VOA Vial V.2 oz Glass 1/2 oz Glass L/B oz Glass	oz Amber Glass LV8 oz Plastic	oz Plastic L Sterite	Prese	ervation und	Filtered	NI	ORATORY UMBER Use Only)	BCRA/21E	08 NH PETROLEUM	18 Anomatics 18 Halocarbons	2 2	0C PAHs anly 1A Pesticides	SONCE CHTACH	1A Herbicides 1 EDB/DBCP	HA List Metals	aliy.	-IR el Range Organics (DR TPH	DEP EPH w/all tangets ocarbon Fingerprint (G	by GC/FID (80158 Mod bline Range Organics (6 DEP VPH w/all targets 1	P SPLP G 8 Metals (osivity (as pH) G Reac	485c Lispusationners	Grease	☐ TDS ☐ TSS ☐ TS ☐ Ide, Total ☐ Cyanide, P	Dissolved Oxygen Coliforn D Fecal Colif
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GROUNDWATER ANALYTICAL	228 Main St Buzzards Ba Telephone (www.ground	ay, MA 02 508) 759-	532 4441 • F	FAX (508) 75	9-4475		IAIN-OI			DY RECORD																				
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SAMPLE IDENTIFICATION	GROUNDWATER DRINKING WATER WASTEWATER SOIL	OTHER SOLID OIL/ORGANIC LIQUID	COMPOSITE	NUMBERS 40mL VOA Vial 60mL/2 oz Glass 120mL/4 oz Amber Glass 250mL/8 oz Glass	500mL/16 oz Glass 1L/32 oz Amber Glass 250mL/8 oz Plastic 500mL/16 oz Plastic	1L/32 oz Plastic 120mL Sterile	HNO, H,SO, NaOH	Methanol Sodium Bisultate	YES .	LABORATORY NUMBER (Lab Use Only)	RCRA/21E	☐ 82808 TCL+MTBE	802	☐ 8021B	□ 8270C	☐ 8270G PAHS only	SOXET	□ 8011 EDB/DBCP	O STATE METAIS 23 TAL	□ Specify:	☐ TPH-IR ☐ Diesel Range Organ	O MA DEP EPH w/all t	TPH by GC/FID (801	☐ MA DEP VPH w/all	Corrosivity (as pH)	☐ Nitrate ☐ Nitrite ☐	☐ Ammonia ☐ TKN ☐ ☐ Oil & Grease	□ 600 □ T00 □ TSS	Toph Dissolved Ox	
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Quality Assurance/Quality Control

A. Program Overview

Groundwater Analytical conducts an active Quality Assurance program to ensure the production of high quality, valid data. This program closely follows the guidance provided by *Interim Guidelines and Specifications for Preparing Quality Assurance Project Plans*, US EPA QAMS-005/80 (1980), and *Test Methods for Evaluating Solid Waste*, US EPA, SW-846, Update III (1996).

Quality Control protocols include written Standard Operating Procedures (SOPs) developed for each analytical method. SOPs are derived from US EPA methodologies and other established references. Standards are prepared from commercially obtained reference materials of certified purity, and documented for traceability.

Quality Assessment protocols for most organic analyses include a minimum of one laboratory control sample, one method blank, one matrix spike sample, and one sample duplicate for each sample preparation batch. All samples, standards, blanks, laboratory control samples, matrix spikes and sample duplicates are spiked with internal standards and surrogate compounds. All instrument sequences begin with an initial calibration verification standard and a blank; and excepting GC/MS sequences, all sequences close with a continuing calibration standard. GC/MS systems are tuned to appropriate ion abundance criteria daily, or for each 12 hour operating period, whichever is more frequent.

Quality Assessment protocols for most inorganic analyses include a minimum of one laboratory control sample, one method blank, one matrix spike sample, and one sample duplicate for each sample preparation batch. Standard curves are derived from one reagent blank and four concentration levels. Curve validity is verified by standard recoveries within plus or minus ten percent of the curve.

B. Definitions

Batches are used as the basic unit for Quality Assessment. A Batch is defined as twenty or fewer samples of the same matrix which are prepared together for the same analysis, using the same lots of reagents and the same techniques or manipulations, all within the same continuum of time, up to but not exceeding 24 hours.

Laboratory Control Samples are used to assess the accuracy of the analytical method. A Laboratory Control Sample consists of reagent water or sodium sulfate spiked with a group of target analytes representative of the method analytes. Accuracy is defined as the degree of agreement of the measured value with the true or expected value. Percent Recoveries for the Laboratory Control Samples are calculated to assess accuracy.

Method Blanks are used to assess the level of contamination present in the analytical system. Method Blanks consist of reagent water or an aliquot of sodium sulfate. Method Blanks are taken through all the appropriate steps of an analytical method. Sample data reported is not corrected for blank contamination.

Surrogate Compounds are used to assess the effectiveness of an analytical method in dealing with each sample matrix. Surrogate Compounds are organic compounds which are similar to the target analytes of interest in chemical behavior, but which are not normally found in environmental samples. Percent Recoveries are calculated for each Surrogate Compound.



Quality Control Report Laboratory Control Samples

LCS LCSD

EPA 8082 Instrument ID: GC-13 Agilent 6890 Instrument ID: GC-13 Agilent 6890 Category: QC Batch ID: PB-3770-X Extracted: 07-14-11 21:00 Extracted: 07-14-11 21:00 07-15-11 22:00 07-15-11 22:00 Matrix: Soil Cleaned Up: Cleaned Up: Units: 07-16-11 03:06 Analyzed: 07-16-11 03:30 ug/Kg Analyzed: Analyst: CRL Analyst: CRL

LCS										LCS Dupl	icate				
CAS Number	AS Number Analyte		Mea	sured	Reco	very	Spiked	Meas	sured	Reco	overy	RI	PD	QC Lir	nits
			1st Col	2nd Col	1st Col	2nd Col		1st Col	2nd Col	1st Col	2nd Col	1st Col	2nd Col	Spike	RPD
12674-11-2	Aroclor 1016	170	170	170	102%	101%	170	170	170	102%	104%	0 %	2 %	40 - 140%	30 %
11096-82-5	Aroclor 1260	170	170	180	103%	105%	170	170	180	103%	107%	0 %	2 %	40 - 140%	30 %

QC Surrogate Compound					Surro	gate Rec	covery				QC Limits
Tetrachloro-m -xylene	6.7	6.7	6.6	101%	100%	6.7	6.5	6.5	98%	98%	30 - 150 %
Decachlorobiphenyl	6.7	4.7	4.7	70%	71%	6.7	4.6	4.7	70%	71%	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Report Notations: All calculations performed prior to rounding. Quality Control Limits are defined by the methodology,

or alternatively based upon the historical average recovery plus or minus three standard deviation units.



Soil

Quality Control Report Method Blank

 Category:
 EPA Method 8082
 Instrument ID:
 GC-13 Agilent 6890

 QC Batch ID:
 PB-3770-X
 Extracted:
 07-14-11 21:00

Cleaned Up: **07-15-11 22:00**Analyzed: **07-16-11 02:43**

Analyst: CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	40
11104-28-2	Aroclor 1221	BRL	ug/Kg	40
11141-16-5	Aroclor 1232	BRL	ug/Kg	40
53469-21-9	Aroclor 1242	BRL	ug/Kg	40
12672-29-6	Aroclor 1248	BRL	ug/Kg	40
11097-69-1	Aroclor 1254	BRL	ug/Kg	40
11096-82-5	Aroclor 1260	BRL	ug/Kg	40
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	40
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	40

QC Surrogate	Compound	Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	6.7	6.5	98 %	30 - 150 %
Column	Decachlorobiphenyl	6.7	4.3	65 %	30 - 150 %
Second	Tetrachloro-m-xylene	6.7	6.6	100 %	30 - 150 %
Column	Decachlorobiphenyl	6.7	4.6	69 %	30 - 150 %

Method Reference:

Matrix:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.



Quality Control Report Laboratory Control Samples

LCS LCSD

EPA 8082 Instrument ID: GC-13 Agilent 6890 Instrument ID: GC-13 Agilent 6890 Category: QC Batch ID: PB-3771-X Extracted: 07-14-11 21:30 Extracted: 07-14-11 21:30 07-15-11 20:00 Cleaned Up: 07-15-11 20:00 Matrix: Soil Cleaned Up: Units: 07-16-11 13:44 Analyzed: 07-16-11 14:08 ug/Kg Analyzed: Analyst: CRL Analyst: CRL

LCS										LCS Dupli	icate				
CAS Number	Analyte	Analyte Spiked Measured Recovery		Spiked	Meas	sured	Reco	very	RI	PD	QC Lir	nits			
			1st Col	2nd Col	1st Col	2nd Col		1st Col	2nd Col	1st Col	2nd Col	1st Col	2nd Col	Spike	RPD
12674-11-2	Aroclor 1016	170	190	180	115%	110%	170	200	180	118%	106%	2 %	3 %	40 - 140%	30 %
11096-82-5	Aroclor 1260	170	180	180	107%	109%	170	180	180	108%	110%	1 %	1 %	40 - 140%	30 %

QC Surrogate Compound					Surro	gate Rec	covery				QC Limits
Tetrachloro-m -xylene	6.7	6.9	6.7	103%	101%	6.7	6.9	6.7	103%	101%	30 - 150 %
Decachlorobiphenyl	6.7	4.4	4.5	66%	68%	6.7	4.5	4.6	67%	69%	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Report Notations: All calculations performed prior to rounding. Quality Control Limits are defined by the methodology,

or alternatively based upon the historical average recovery plus or minus three standard deviation units.



Quality Control Report Method Blank

 Category:
 EPA Method 8082
 Instrument ID:
 GC-13 Agilent 6890

 QC Batch ID:
 PB-3771-X
 Extracted:
 07-14-11 21:30

 Matrix:
 Soil
 Cleaned Up:
 07-15-11 20:00

Cleaned Up: **07-15-11 20:00**Analyzed: **07-16-11 13:20**

Analyst: CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	40
11104-28-2	Aroclor 1221	BRL	ug/Kg	40
11141-16-5	Aroclor 1232	BRL	ug/Kg	40
53469-21-9	Aroclor 1242	BRL	ug/Kg	40
12672-29-6	Aroclor 1248	BRL	ug/Kg	40
11097-69-1	Aroclor 1254	BRL	ug/Kg	40
11096-82-5	Aroclor 1260	BRL	ug/Kg	40
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	40
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	40

QC Surrogate	Compound	Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	6.7	6.5	98 %	30 - 150 %
Column	Decachlorobiphenyl	6.7	4	60 %	30 - 150 %
Second	Tetrachloro-m -xylene	6.7	6.5	98 %	30 - 150 %
Column	Decachlorobiphenyl	6.7	4.2	64 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.



Certifications and Approvals

Groundwater Analytical maintains environmental laboratory certification in a variety of states. Copies of our current certificates may be obtained from our website:

http://www.groundwateranalytical.com/qualifications.htm

CONNECTICUT

Department of Health Services, PH-0586

Potable Water, Wastewater, Solid Waste and Soil

http://www.ct.gov/dph/lib/dph/environmental health/environmental laboratories/pdf/Out State.pdf

MASSACHUSETTS

Department of Labor,

Department of Environmental Protection, M-MA-103

Potable Water and Non-Potable Water

http://public.dep.state.ma.us/labcert/labcert.aspx

Division of Occupational Safety, AA000195

http://www.mass.gov/dos/forms/la-rpt list aa.pdf

Asbestos Analytical Services, Class A

NEW HAMPSHIRE

Department of Environmental Services, 202708

http://www4.egov.nh.gov/DES/NHELAP

Potable Water, Non-Potable Water, Solid and Chemical Materials

NEW YORK

Department of Health, 11754

http://www.wadsworth.org/labcert/elap/comm.html

Potable Water, Non-Potable Water, Solid and Hazardous Waste

RHODE ISLAND

Department of Health,

Division of Laboratories, LAO00054

http://www.health.ri.gov/labs/outofstatelabs.pdf

Potable and Non-Potable Water Microbiology, Organic and Inorganic Chemistry

U.S. DEPARTMENT OF AGRICULTURE

USDA, Soil Permit, S-53921

Foreign soil import permit

VERMONT

Department of Health, VT-87643

http://healthvermont.gov/enviro/ph_lab/water_test.aspx#cert

Potable Water



Certifications and Approvals

MASSACHUSETTS

Department of Environmental Protection, M-MA-103

Groundwater Analytical maintains MassDEP environmental laboratory certification for only the methods and analytes listed below. Analyses for certified analytes are conducted in accordance with MassDEP certification standards, except as may be specifically noted in the project narrative.

Potable Water (Drinking Water)		Non-Potable Water (Wastewater)	
Analyte	Method	Analyte	Method
/		,	
1,2-Dibromo-3-Chloropropane	EPA 504.1	Aluminum	EPA 200.8
1,2-Dibromoethane	EPA 504.1	Ammonia-N	Lachat 10-107-06-1-B
Alkalinity, Total	SM 2320-B	Antimony	EPA 200.7
Antimony	EPA 200.8	Antimony	EPA 200.8
Arsenic	EPA 200.8	Arsenic	EPA 200.7
Barium	EPA 200.7	Arsenic	EPA 200.8
Barium	EPA 200.8	Beryllium	EPA 200.7
Beryllium	EPA 200.7	Beryllium	EPA 200.8
Beryllium	EPA 200.8	Beta-BHC	EPA 608
Cadmium	EPA 200.7	Biochemical Oxygen Demand	SM 5210-B
Cadmium	EPA 200.8	Cadmium	EPA 200.7
Calcium	EPA 200.7	Cadmium	EPA 200.8
Chlorine, Residual Free	SM 4500-CL-G	Calcium	EPA 200.7
Chromium	EPA 200.7	Chemical Oxygen Demand	SM 5220-D
Copper	EPA 200.7	Chlordane	EPA 608
Copper	EPA 200.8	Chloride	EPA 300.0
Cyanide, Total	Lachat 10-204-00-1-A	Chlorine, Total Residual	SM 4500-CL-G
E. Coli (Treatment and Distribution)	Enz. Sub. SM 9223	Chromium	EPA 200.7
E. Coli (Treatment and Distribution)	NA-MUG SM 9222-G	Chromium	EPA 200.8
Fecal Coliform (Source Water)	MF SM 9222-D	Cobalt	EPA 200.7
Fluoride	EPA 300.0	Cobalt	EPA 200.8
Fluoride	SM 4500-F-C	Copper	EPA 200.7
Haloacetic Acids	EPA 552.2	Copper	EPA 200.8
Heterotrophic Plate Count	SM 9215-B	Cyanide, Total	Lachat 10-204-00-1-A
•	EPA 200.8	DDD	EPA 608
Lead		DDE	
Mercury	EPA 245.1		EPA 608
Nickel	EPA 200.7	DDT	EPA 608
Nickel	EPA 200.8	Delta-BHC	EPA 608
Nitrate-N	EPA 300.0	Dieldrin	EPA 608
Nitrate-N	Lachat 10-107-04-1-C	Endosulfan I	EPA 608
Nitrite-N	EPA 300.0	Endosulfan II	EPA 608
Nitrite-N	Lachat 10-107-04-1-C	Endosulfan Sulfate	EPA 608
pH	SM 4500-H-B	Endrin	EPA 608
Selenium	EPA 200.8	Endrin Aldehyde	EPA 608
Silver	EPA 200.7	Gamma-BHC	EPA 608
Silver	EPA 200.8	Hardness (CaCO3), Total	EPA 200.7
Sodium	EPA 200.7	Hardness (CaCO3), Total	SM 2340-B
Sulfate	EPA 300.0	Heptachlor	EPA 608
Thallium	EPA 200.8	Heptachlor Epoxide	EPA 608
Total Coliform (Treatment and Distribution)	Enz. Sub. SM 9223	Iron	EPA 200.7
Total Coliform (Treatment and Distribution)	MF SM 9222-B	Kjeldahl-N	Lachat 10-107-06-02-D
Total Dissolved Solids	SM 2540-C	Lead	EPA 200.7
Trihalomethanes	EPA 524.2	Magnesium	EPA 200.7
Turbidity	SM 2130-B	Manganese	EPA 200.7
Volatile Organic Compounds	EPA 524.2	Manganese	EPA 200.8
		Mercury	EPA 245.1
Non-Potable Water (Wastewater)		Molybdenum	EPA 200.7
Analyte	Method	Molybdenum	EPA 200.8
•		Nickel	EPA 200.7
Aldrin	EPA 608	Nickel	EPA 200.8
Alkalinity, Total	SM 2320-B	Nitrate-N	EPA 300.0
Alpha-BHC	EPA 608	Nitrate-N	Lachat 10-107-04-1-C
Aluminum	EPA 200.7	Non-Filterable Residue	SM 2540-D
		Oil and Grease	EPA 1664
		on and Grease	2.71 100 1



Certifications and Approvals

MASSACHUSETTS

Non-Potable Water (Wastewater)

Zinc

Department of Environmental Protection, M-MA-103

Groundwater Analytical maintains MassDEP environmental laboratory certification for only the methods and analytes listed below. Analyses for certified analytes are conducted in accordance with MassDEP certification standards, except as may be specifically noted in the project narrative.

Analyte	Method
Orthophosphate	Lachat 10-115-01-1-A
pH	SM 4500-H-B
Phenolics, Total	EPA 420.4
Phenolics, Total	Lachat 10-210-00-1-B

1-B Phosphorus, Total Lachat 10-115-01-1-C Phosphorus, Total SM 4500-P-B,E Polychlorinated Biphenyls (Oil) EPA 600/4-81-045 Polychlorinated Biphenyls (Water) EPA 608 EPA 200.7 Potassium Selenium EPA 200.7 EPA 200.8 Selenium Silver EPA 200.7 EPA 200.7 Sodium Specific Conductivity SM 2510-B Strontium EPA 200.7 Sulfate EPA 300.0 **SVOC-Acid Extractables** EPA 625 SVOC-Base/Neutral Extractables EPA 625 Thallium EPA 200.7 Thallium EPA 200.8 EPA 200.7 Titanium **Total Dissolved Solids** SM 2540-C Total Organic Carbon SM 5310-B Toxaphene EPA 608 Vanadium FPA 200.7 Vanadium EPA 200.8 Volatile Aromatics EPA 602 Volatile Aromatics EPA 624 EPA 624 Volatile Halocarbons Zinc EPA 200.7

EPA 200.8



Groundwater Analytical, Inc. P.O. Box 1200 228 Main Street Buzzards Bay, MA 02532

Telephone (508) 759-4441 FAX (508) 759-4475 www.groundwateranalytical.com

July 21, 2011

Ms. Cindy Campisano Environmental Health & Engineering, Inc. 117 Fourth Avenue Needham, MA 02494

LABORATORY REPORT

Project: **EH&E**Lab ID: **143466**Received: **07-15-11**

Dear Cindy:

Enclosed are the analytical results for the above referenced project. The project was processed for Rush 4 Business Day turnaround.

This letter authorizes the release of the analytical results, and should be considered a part of this report. This report contains a sample receipt report detailing the samples received, a project narrative indicating project changes and non-conformances, a quality control report, and a statement of our state certifications.

The analytical results contained in this report meet all applicable NELAC standards, except as may be specifically noted, or described in the project narrative. The analytical results relate only to the samples received. This report may only be used or reproduced in its entirety.

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Should you have any questions concerning this report, please do not hesitate to contact me.

Sincerely,

Karyn E. Raymond Project Manager

Karyn E. Raymond

KER/ker



143466-10 125135

Container

1 L Amber Glass

Con ID

C1325643

Sample Receipt Report

Project: EH&E Delivery: GWA Courier Temperature: 3.4°C Client: Environmental Health & Engineering, Inc. Lab ID: 143466 Delivery: GWA Courier Temperature: 3.4°C Chain of Custody: Present Lab Receipt: 07-15-11 Custody Seal(s): n/a

Client:	Environmental F	lealth & E	ngineerir	ıg, Inc.	Airbill:	n/a		Chain of Custody: Present
Lab ID:	143466			La	b Receipt:	07-15-11		Custody Seal(s): n/a
					-	,		
Lab ID	Field ID		Matrix	Sampled	Method			Notes
143466-1	125430-C-1-A		Soil	7/15/11 0:00	EPA 8082 PC	Bs		
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
C2028748		Proline	BX39298	None	n/a	n/a	n/a	
							* *	
Lab ID	Field ID		Matrix	Sampled	Method			Notes
143466-2	125431-C-1-B		Soil	7/15/11 0:00	EPA 8082 PC	Bs		
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
C2028755	120 mL Amber Glass	Proline	BX39298	None	n/a	n/a	n/a	
1.1.15	r: LUD			6 11	Mall			N.
Lab ID	Field ID		Matrix	Sampled	Method	_		Notes
143466-3	125432-C-1-C		Soil	7/15/11 0:00	EPA 8082 PC			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
C2028756	120 mL Amber Glass	Proline	BX39298	None	n/a	n/a	n/a	
Lab ID	Field ID		Matrix	Sampled	Method			Notes
143466-4	125433-C-2-A		Soil	7/15/11 0:00	EPA 8082 PC	Bs		
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
C2028763		Proline	BX39298	None	n/a	n/a	n/a	
					.,			
Lab ID	Field ID		Matrix	Sampled	Method			Notes
143466-5	125434-C-2-B		Soil	7/15/11 0:00	EPA 8082 PC	Bs		
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
C2028764	120 mL Amber Glass	Proline	BX39298	None	n/a	n/a	n/a	
			1					
Lab ID	Field ID		Matrix	Sampled	Method			Notes
143466-6	125435-C-3-A		Soil	7/15/11 0:00	EPA 8082 PC			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
C2028771	120 mL Amber Glass	Proline	BX39298	None	n/a	n/a	n/a	
Lab ID	Field ID		Matrix	Sampled	Method			Notes
143466-7	125436-C-4-A		Soil	7/15/11 0:00	EPA 8082 PC	'Rc		
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
C2028770		Proline	BX39298	None	n/a	n/a	n/a	
		- 2222.90						
Lab ID	Field ID		Matrix	Sampled	Method			Notes
143466-8	125437-C-5-A		Soil	7/15/11 0:00	EPA 8082 PC	Bs		
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
C2028746	120 mL Amber Glass	Proline	BX39299	None	n/a	n/a	n/a	
Lab ID	Field ID		Matrix	Sampled	Method			Notes
143466-9	125134			7/15/11 0:00	EPA 8082 PC	D _c		Notes
Con ID	Container	Vendor	Aqueous	//15/11 0:00 Preserv			Ch:	
C2039401	1 L Amber Glass	n/a	QC Lot	None	QC Lot	Prep n/a	Ship n/a	
C2033701	i L/Milbel Gldss	II/a	11/4	None	II/a	II/a	II/a	
Lab ID	Field ID		Matrix	Sampled	Method			Notes
				•				

7/15/11 0:00 EPA 8082 PCBs

QC Lot

n/a

Prep

n/a

Ship

n/a

Preserv

None

Aqueous

QC Lot

BX38429

Vendor

Industrial



Data Certification

Project:EH&ELab ID:143466Client:Environmental Health & Engineering, Inc.Received:07-15-11 00:01

	Mass DEP Analytical Protocol Certification Form							
Proj	ect Location:	n/a				MA DEP RTN:	n/a	
This	Form provides cert	ifications for the follo	wing data set:					
EPA	8082: 1434	166-1,-2,-3,-4,-5,-6,-7,-	8,-9,-10					
Sam	ple Matrices: Gro	ındwater/Surface ()	Soil/Sediment (X)	Drinking Wate	er ()	Air ()	Other	(X)
CAN	M Protocol (check a						Mass DEP A	
	8260 VOC 7470/7471 Hg Mass DEP VPH 8081 Pesticides 7196 Hex Cr							
	CAM II A ()	CAM III B () 7010 Metals	CAM IV A () Mass DEP EPH	CAM V B 8151 Herbi	()	CAM VI B () 8330 Explosives	CAM IX A	. ()
	CAM II B (CAM IV B ()	CAM V C	()	CAM VIII A ()	CAM IX B	()
	6010 Metals	6020 Metals	8082 PCB	9012 Cyani	de/PAC	6860 Perchlorate		, ,
	CAM III A (CAM III D ()	- (/	CAM VI A	()	CAM VIII B ()		
An a			gh F are required for "					
A.			n consistent with those					
	within method ho		re) in the field or labor	atoratory, and	prepare	ed/analyzed	Yes	
	within method no	iding times:					res	
В.	Were the analytic	al method(s) and all as	sociated QC requireme	ents specified	in the se	elected CAM		
	protocol(s) follow	ed?					Yes	
C.	Mara all required	corrective actions and	analytical recogness as	tions specifies	lin tha (calcated CAM		
C.			analytical response ac d performance standard			selected CAM	Yes	
	p							
D.			all the reporting requir					
	Assurance and Qu	iality Control Guidelin	es for the Acquisition a	and Reporting	of Analy	ytical Data"?	Yes	
E.	VPH, FPH and AF	H methods only: Was	s each method conduct	ted without sig	nificant	modification(s)?		
			ist of significant modifi		,		n/a	
-	147 II I' I	1 6444 1 106		1 (. 1		
F.			and performance standa ading all "No" response				Yes	
Dan							103	
			required for "Presump					
G.	Were the reportin protocol(s)?	g limits at or below all	CAM reporting limits	specified in th	e selecte	ed CAM	Yes	
	protocoi(s):						ies	
Data	a User Note: Data	that achieve "Presump	otive Certainty" status	may not nece	ssarily n	neet the data		
usa	bility and represe	ntativeness requiren	nents described in 3	10 CMR 40.10	056(2)(k	and WSC-07-350.		
Н.	Were all OC perfo	ormance standards sne	cified in the CAM prote	ocol(s) achieve	-43		No	
11.	Were all QC perio	mance standards spe-	emed in the C/ tivi prot	ocoi(s) acineve	.u:		140	
I.	Were results repo	rted for the complete a	nalyte list specified in	the selected C	AM pro	tocol(s)?	Yes	
Allı	negative responses i	nust be addressed in a	ın attached laboratory	narrative.			1	
I, th	e undersigned, at	test under the pains	and penalties of per	jury that, bas	sed upo	n my personal inqu	uiry of those	
		•	, the material contain	ned in this ar	nalytica	I report is, to the be	est of my	
kno	wiedge and belief	, accurate and comp	olete.					
Sign	nature:			Position:	Projec	t Manager		
Prin	Printed Name: Karyn E. Raymond Date: 07-21-11							
		,,						

Karyn E. Raymond



Field ID: 125430-C-1-A Matrix: Solid

Project: EH&E Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 143466-01 QC Batch ID: PB-3772-X

Sampled: 07-15-11 00:00 Instrument ID: GC-13 Agilent 6890

07-15-11 00:01 Received: Sample Weight: 30 g Extracted: 07-18-11 13:45 Final Volume: 1 mL Cleaned Up: 07-19-11 13:30 Percent Solids: na 07-19-11 18:50 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	40
11104-28-2	Aroclor 1221	BRL	ug/Kg	40
11141-16-5	Aroclor 1232	BRL	ug/Kg	40
53469-21-9	Aroclor 1242	BRL	ug/Kg	40
12672-29-6	Aroclor 1248	BRL	ug/Kg	40
11097-69-1	Aroclor 1254	82 1C (76)*	ug/Kg	40
11096-82-5	Aroclor 1260	BRL	ug/Kg	40
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	40
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	40

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	7	5	76 %	30 - 150 %
Column	Decachlorobiphenyl	7	4	61 %	30 - 150 %
Second	Tetrachloro-m -xylene	7	5	70 %	30 - 150 %
Column	Decachlorobiphenyl	7	4	63 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 1C Concentration reported from first column.



Field ID: 125431-C-1-B Matrix: Solid

Project: EH&E Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 143466-02 QC Batch ID: PB-3772-X

Sampled: 07-15-11 00:00 Instrument ID: GC-13 Agilent 6890

07-15-11 00:01 Received: Sample Weight: 31 g Extracted: 07-18-11 13:45 Final Volume: 1 mL Cleaned Up: 07-19-11 13:30 Percent Solids: na 07-19-11 19:13 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	40
11104-28-2	Aroclor 1221	BRL	ug/Kg	40
11141-16-5	Aroclor 1232	BRL	ug/Kg	40
53469-21-9	Aroclor 1242	BRL	ug/Kg	40
12672-29-6	Aroclor 1248	BRL	ug/Kg	40
11097-69-1	Aroclor 1254	89 1C (75)*	ug/Kg	40
11096-82-5	Aroclor 1260	BRL	ug/Kg	40
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	40
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	40

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	7	6	90 %	30 - 150 %
Column	Decachlorobiphenyl	7	4	63 %	30 - 150 %
Second	Tetrachloro-m -xylene	7	6	90 %	30 - 150 %
Column	Decachlorobiphenyl	7	4	63 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 1C Concentration reported from first column.



Field ID: 125432-C-1-C Matrix: Solid

Project: EH&E Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 143466-03 QC Batch ID: PB-3772-X

Sampled: 07-15-11 00:00 Instrument ID: GC-13 Agilent 6890

07-15-11 00:01 Received: Sample Weight: 31 g Extracted: 07-18-11 13:45 Final Volume: 1 mL Cleaned Up: 07-19-11 13:30 Percent Solids: na 07-19-11 19:37 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration	Units	Reporting Limit	
12674-11-2	Aroclor 1016	BRL	ug/Kg	40	
11104-28-2	Aroclor 1221	BRL		ug/Kg	40
11141-16-5	Aroclor 1232	BRL	ug/Kg	40	
53469-21-9	Aroclor 1242	BRL	ug/Kg	40	
12672-29-6	Aroclor 1248	BRL		ug/Kg	40
11097-69-1	Aroclor 1254	110	1C (88)*	ug/Kg	40
11096-82-5	Aroclor 1260	BRL	ug/Kg	40	
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	40	
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	40	

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	7	6	94 %	30 - 150 %
Column	Decachlorobiphenyl	7	4	66 %	30 - 150 %
Second	Tetrachloro-m -xylene	7	6	97 %	30 - 150 %
Column	Decachlorobiphenyl	7	4	63 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 1C Concentration reported from first column.



Field ID: 125433-C-2-A Matrix: Solid

Project: EH&E Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 143466-04 QC Batch ID: PB-3772-X

Sampled: 07-15-11 00:00 Instrument ID: GC-13 Agilent 6890

Received: 07-15-11 00:01 Sample Weight: 30 g 07-18-11 13:45 Extracted: Final Volume: 1 mL Cleaned Up: 07-19-11 13:30 Percent Solids: na Analyzed: 07-19-11 20:01 Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	40
11104-28-2	Aroclor 1221	BRL	ug/Kg	40
11141-16-5	Aroclor 1232	BRL	ug/Kg	40
53469-21-9	Aroclor 1242	BRL	ug/Kg	40
12672-29-6	Aroclor 1248	BRL	ug/Kg	40
11097-69-1	Aroclor 1254	BRL	ug/Kg	40
11096-82-5	Aroclor 1260	BRL	ug/Kg	40
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	40
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	40

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	7	6	86 %	30 - 150 %
Column	Decachlorobiphenyl	7	4	63 %	30 - 150 %
Second	Tetrachloro-m-xylene	7	6	88 %	30 - 150 %
Column	Decachlorobiphenyl	7	4	65 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996). Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.



Field ID: 125434-C-2-B Matrix: Solid

Project: EH&E Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 143466-05 QC Batch ID: PB-3772-X

Sampled: 07-15-11 00:00 Instrument ID: GC-13 Agilent 6890

Received: 07-15-11 00:01 Sample Weight: 31 g 07-18-11 13:45 Extracted: Final Volume: 1 mL Cleaned Up: 07-19-11 13:30 Percent Solids: na Analyzed: 07-19-11 20:25 Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	40
11104-28-2	Aroclor 1221	BRL	ug/Kg	40
11141-16-5	Aroclor 1232	BRL	ug/Kg	40
53469-21-9	Aroclor 1242	BRL	ug/Kg	40
12672-29-6	Aroclor 1248	BRL	ug/Kg	40
11097-69-1	Aroclor 1254	BRL	ug/Kg	40
11096-82-5	Aroclor 1260	BRL	ug/Kg	40
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	40
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	40

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	7	6	89 %	30 - 150 %
Column	Decachlorobiphenyl	7	4	63 %	30 - 150 %
Second	Tetrachloro-m-xylene	7	6	89 %	30 - 150 %
Column	Decachlorobiphenyl	7	4	63 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.



Field ID: 125435-C-3-A Matrix: Solid

Project: EH&E Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 143466-06 QC Batch ID: PB-3772-X

Sampled: 07-15-11 00:00 Instrument ID: GC-13 Agilent 6890

Received: 07-15-11 00:01 Sample Weight: 30 g 07-18-11 13:45 Extracted: Final Volume: 1 mL Cleaned Up: 07-19-11 13:30 Percent Solids: na 07-19-11 20:48 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	40
11104-28-2	Aroclor 1221	BRL	ug/Kg	40
11141-16-5	Aroclor 1232	BRL	ug/Kg	40
53469-21-9	Aroclor 1242	BRL	ug/Kg	40
12672-29-6	Aroclor 1248	BRL	ug/Kg	40
11097-69-1	Aroclor 1254	BRL	ug/Kg	40
11096-82-5	Aroclor 1260	BRL	ug/Kg	40
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	40
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	40

QC Surrogate	Compound	Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	7	6	87 %	30 - 150 %
Column	Decachlorobiphenyl	7	4	63 %	30 - 150 %
Second	Tetrachloro-m -xylene	7	6	89 %	30 - 150 %
Column	Decachlorobiphenyl	7	4	64 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.



Field ID: 125436-C-4-A Matrix: Solid

Project: EH&E Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 143466-07 QC Batch ID: PB-3772-X

Sampled: 07-15-11 00:00 Instrument ID: GC-13 Agilent 6890

Received: 07-15-11 00:01 Sample Weight: 31 g 07-18-11 13:45 Extracted: Final Volume: 1 mL Cleaned Up: 07-19-11 13:30 Percent Solids: na Analyzed: 07-19-11 21:12 Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	40
11104-28-2	Aroclor 1221	BRL	ug/Kg	40
11141-16-5	Aroclor 1232	BRL	ug/Kg	40
53469-21-9	Aroclor 1242	BRL	ug/Kg	40
12672-29-6	Aroclor 1248	BRL	ug/Kg	40
11097-69-1	Aroclor 1254	BRL	ug/Kg	40
11096-82-5	Aroclor 1260	BRL	ug/Kg	40
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	40
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	40

QC Surrogate C	QC Surrogate Compound		Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	7	4	55 %	30 - 150 %
Column	Decachlorobiphenyl	7	4	61 %	30 - 150 %
Second	Tetrachloro-m -xylene	7	4	57 %	30 - 150 %
Column	Decachlorobiphenyl	7	4	61 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996). Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.



Field ID: 125437-C-5-A Matrix: Solid

Project: EH&E Container: 120 mL Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 143466-08 QC Batch ID: PB-3772-X

Sampled: 07-15-11 00:00 Instrument ID: GC-13 Agilent 6890

07-15-11 00:01 Received: Sample Weight: 31 g Extracted: 07-18-11 13:45 Final Volume: 1 mL Cleaned Up: 07-19-11 13:30 Percent Solids: na 07-19-11 23:10 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	56	1C (48)*	ug/Kg	40
11104-28-2	Aroclor 1221	BRL		ug/Kg	40
11141-16-5	Aroclor 1232	BRL		ug/Kg	40
53469-21-9	Aroclor 1242	BRL	ug/Kg	40	
12672-29-6	Aroclor 1248	BRL		ug/Kg	40
11097-69-1	Aroclor 1254	BRL		ug/Kg	40
11096-82-5	Aroclor 1260	BRL		ug/Kg	40
37324-23-5	Aroclor 1262 [†]	BRL		ug/Kg	40
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	40

QC Surrogate (QC Surrogate Compound		Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	7	6	86 %	30 - 150 %
Column	Decachlorobiphenyl	7	4	57 %	30 - 150 %
Second	Tetrachloro-m -xylene	7	6	87 %	30 - 150 %
Column	Decachlorobiphenyl	7	4	58 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 1C Concentration reported from first column.



Field ID: 125134 Matrix: Aqueous

Project: EH&E Container: 1 L Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 143466-09 QC Batch ID: PB-2708-F

Sampled: 07-15-11 00:00 Instrument ID: GC-13 Agilent 6890

 Received:
 07-15-11
 00:01
 Sample Weight:
 1000 mL

 Extracted:
 07-18-11
 16:30
 Final Volume:
 1 mL

 Cleaned Up:
 07-18-11
 20:30
 Dilution Factor:
 1

Analyzed: **07-19-11 14:52**

Analyst: CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/L	0.2
11104-28-2	Aroclor 1221	BRL	ug/L	0.2
11141-16-5	Aroclor 1232	BRL	ug/L	0.2
53469-21-9	Aroclor 1242	BRL	ug/L	0.2
12672-29-6	Aroclor 1248	BRL	ug/L	0.2
11097-69-1	Aroclor 1254	BRL	ug/L	0.2
11096-82-5	Aroclor 1260	BRL	ug/L	0.2
37324-23-5	Aroclor 1262 [†]	BRL	ug/L	0.2
11100-14-4	Aroclor 1268 [†]	BRL	ug/L	0.2

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	0.20	0.21	105 %	30 - 150 %
Column	Decachlorobiphenyl	0.20	0.10	52 %	30 - 150 %
Second	Tetrachloro-m -xylene	0.20	0.17	83 %	30 - 150 %
Column	Decachlorobiphenyl	0.20	0.11	57 %	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3510C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.



Field ID: 125135 Matrix: Aqueous

Project: EH&E Container: 1 L Amber Glass

Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 143466-10 QC Batch ID: PB-2708-F

Sampled: 07-15-11 00:00 Instrument ID: GC-13 Agilent 6890

 Received:
 07-15-11
 00:01
 Sample Weight:
 1000 mL

 Extracted:
 07-18-11
 16:30
 Final Volume:
 1 mL

 Cleaned Up:
 07-18-11
 20:30
 Dilution Factor:
 1

Analyzed: **07-19-11 15:16**

Analyst: CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/L	0.2
11104-28-2	Aroclor 1221	BRL	ug/L	0.2
11141-16-5	Aroclor 1232	BRL	ug/L	0.2
53469-21-9	Aroclor 1242	BRL	ug/L	0.2
12672-29-6	Aroclor 1248	BRL	ug/L	0.2
11097-69-1	Aroclor 1254	BRL	ug/L	0.2
11096-82-5	Aroclor 1260	BRL	ug/L	0.2
37324-23-5	Aroclor 1262 [†]	BRL	ug/L	0.2
11100-14-4	Aroclor 1268 [†]	BRL	ug/L	0.2

QC Surrogate	QC Surrogate Compound		Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	0.20	0.23	115 %	30 - 150 %
Column	Decachlorobiphenyl	0.20	0.11	55 %	30 - 150 %
Second	Tetrachloro-m -xylene	0.20	0.19	93 %	30 - 150 %
Column	Decachlorobiphenyl	0.20	0.12	58 %	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3510C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.



Project Narrative

Project: EH&E Lab ID: 143466

Client: Environmental Health & Engineering, Inc. Received: 07-15-11 00:01

A. Documentation and Client Communication

The following documentation discrepancies, and client changes or amendments were noted for this project:

1. No documentation discrepancies, changes, or amendments were noted.

B. Method Modifications, Non-Conformances and Observations

The sample(s) in this project were analyzed by the references analytical method(s), and no method modifications, non-conformances or analytical issues were noted, except as indicated below:

- 1. Samples 143466-1,-2,-3,-4,-5,-6,-7,-8,-9 and -10 were not received with sample collection times listed on the Chain of Custody. Samples were reported with a sampling collection time of 00:00 by the laboratory.
- 2. EPA 8082 Non-conformance: Samples 143466-1 through -8. Laboratory control sample duplicate (LCSD) had surrogate outside of recommended limits on one column.

Environmental Health & Engineering, Inc.

10 TOTAL /309 3.4

CHAIN OF CUSTODY FORM

DATE: 14 July 2041

FROM: Environmental Health and Engineering, Inc. 117 Fourth Avenue

TO: GROW	DWATER ANAM	Needham, MA 02494-2 Please send invoices to ATTN Please send reports to ATTN:	: Accounts Payable
In all correspon	dence regarding th	nis matter, please refer to EH&E Project #	× ×
		overed by EH&E Purchase Order #	AP-
	ta Coordinator - Ul		
SAMPLE ID	SAMPLE TYPE	ANALYTICAL METHOD/NUMBER	OTHER:Time/Date/Vol.
125430-6-1-	A Buck	EPA 8\$82 - U SOKLET EXTRACTED	ν ·
105431-C-1-B			
125432-01-0			
125433-C2-A			
125484-02-8	=		1
125435-63-A			
125436-04	Ann		381
125434C5-A			
102130 Ct 1			
125134	LEQUED	* 2	
192132	LZQUID		
70 - 7		-	
	TO 20		
Curalal Institut	140s		
Special instru	Standard	turn around time Rush by — date/time	□ Other —
a		date/time	
	. /	SAMPLES Electronic transfer - datacoordi	
	Additiona	al report recipient	<u></u>
Each signat	ory please reti	urn one copy of this form to the above addre	ess
Relinquished by	y: Ohn S.A	of Environmental Health & Engineering, Inc.	Date: 15 Jory 264
Received by: _	Man	of (company name) <u>GwA</u>	Date: 15 JULY 2,811
Relinquished by	111011	of (company name) Gull	Date: 15 Tucy 2011
Received by: _	1/2	of (company name) OWA	Date: 7/5/200
	y:	of (company name)	Date:
	te	of (company name)	Date:
Lab Data Received by: _		The state of the s	Section At
		of Environmental Health & Engineering, Inc.	Date:



Quality Assurance/Quality Control

A. Program Overview

Groundwater Analytical conducts an active Quality Assurance program to ensure the production of high quality, valid data. This program closely follows the guidance provided by *Interim Guidelines and Specifications for Preparing Quality Assurance Project Plans*, US EPA QAMS-005/80 (1980), and *Test Methods for Evaluating Solid Waste*, US EPA, SW-846, Update III (1996).

Quality Control protocols include written Standard Operating Procedures (SOPs) developed for each analytical method. SOPs are derived from US EPA methodologies and other established references. Standards are prepared from commercially obtained reference materials of certified purity, and documented for traceability.

Quality Assessment protocols for most organic analyses include a minimum of one laboratory control sample, one method blank, one matrix spike sample, and one sample duplicate for each sample preparation batch. All samples, standards, blanks, laboratory control samples, matrix spikes and sample duplicates are spiked with internal standards and surrogate compounds. All instrument sequences begin with an initial calibration verification standard and a blank; and excepting GC/MS sequences, all sequences close with a continuing calibration standard. GC/MS systems are tuned to appropriate ion abundance criteria daily, or for each 12 hour operating period, whichever is more frequent.

Quality Assessment protocols for most inorganic analyses include a minimum of one laboratory control sample, one method blank, one matrix spike sample, and one sample duplicate for each sample preparation batch. Standard curves are derived from one reagent blank and four concentration levels. Curve validity is verified by standard recoveries within plus or minus ten percent of the curve.

B. Definitions

Batches are used as the basic unit for Quality Assessment. A Batch is defined as twenty or fewer samples of the same matrix which are prepared together for the same analysis, using the same lots of reagents and the same techniques or manipulations, all within the same continuum of time, up to but not exceeding 24 hours.

Laboratory Control Samples are used to assess the accuracy of the analytical method. A Laboratory Control Sample consists of reagent water or sodium sulfate spiked with a group of target analytes representative of the method analytes. Accuracy is defined as the degree of agreement of the measured value with the true or expected value. Percent Recoveries for the Laboratory Control Samples are calculated to assess accuracy.

Method Blanks are used to assess the level of contamination present in the analytical system. Method Blanks consist of reagent water or an aliquot of sodium sulfate. Method Blanks are taken through all the appropriate steps of an analytical method. Sample data reported is not corrected for blank contamination.

Surrogate Compounds are used to assess the effectiveness of an analytical method in dealing with each sample matrix. Surrogate Compounds are organic compounds which are similar to the target analytes of interest in chemical behavior, but which are not normally found in environmental samples. Percent Recoveries are calculated for each Surrogate Compound.



Quality Control Report Laboratory Control Samples

LCS LCSD

EPA 8082 Instrument ID: GC-13 Agilent 6890 Instrument ID: GC-13 Agilent 6890 Category: 07-18-11 13:45 QC Batch ID: PB-3772-X Extracted: 07-18-11 13:45 Extracted: 07-19-11 13:30 07-19-11 13:30 Matrix: Soil Cleaned Up: Cleaned Up: Units: 07-19-11 18:02 Analyzed: 07-19-11 18:26 ug/Kg Analyzed:

Analyst: CRL Analyst: CRL

		LCS					LCS Duplicate								
CAS Number	Analyte	Spiked	Meas	sured	Reco	overy	Spiked	Meas	sured	Reco	very	RI	D	QC Lir	nits
			1st Col	2nd Col	1st Col	2nd Col		1st Col	2nd Col	1st Col	2nd Col	1st Col	2nd Col	Spike	RPD
12674-11-2	Aroclor 1016	170	170	160	104%	96%	170	210	180	127%	108%	20 %	12 %	40 - 140%	30 %
11096-82-5	Aroclor 1260	170	150	170	90%	99%	170	160	180	99%	106%	9 %	7 %	40 - 140%	30 %

QC Surrogate Compound					Surro	gate Rec	overy				QC Limits
Tetrachloro-m -xylene	6.7	7	6.5	106%	97%	6.7	13	6	197 % q	90%	30 - 150 %
Decachlorobiphenyl	6.7	3.8	3.9	57%	59%	6.7	3.8	4.2	57%	63%	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Report Notations: All calculations performed prior to rounding. Quality Control Limits are defined by the methodology, or alternatively based upon the historical average recovery plus or minus three standard deviation units.

of alternatively based upon the historical average recovery plus of filmus three standard devi

q Surrogate recovery outside recommended limits.



Soil

Quality Control Report Method Blank

 Category:
 EPA Method 8082
 Instrument ID:
 GC-13 Agilent 6890

 QC Batch ID:
 PB-3772-X
 Extracted:
 07-18-11 13:45

Cleaned Up: **07-19-11 13:30**Analyzed: **07-19-11 17:39**

Analyst: CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	40
11104-28-2	Aroclor 1221	BRL	ug/Kg	40
11141-16-5	Aroclor 1232	BRL	ug/Kg	40
53469-21-9	Aroclor 1242	BRL	ug/Kg	40
12672-29-6	Aroclor 1248	BRL	ug/Kg	40
11097-69-1	Aroclor 1254	BRL	ug/Kg	40
11096-82-5	Aroclor 1260	BRL	ug/Kg	40
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	40
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	40

QC Surrogate	Compound	Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	6.7	6.6	100 %	30 - 150 %
Column	Decachlorobiphenyl	6.7	3.5	52 %	30 - 150 %
Second	Tetrachloro-m-xylene	6.7	6.3	95 %	30 - 150 %
Column	Decachlorobiphenyl	6.7	3.8	57 %	30 - 150 %

Method Reference:

Matrix:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.



Quality Control Report Laboratory Control Samples

LCSD LCSD

Category: **EPA 8082** Instrument ID: GC-13 Agilent 6890 Instrument ID: GC-13 Agilent 6890 QC Batch ID: PB-2708-F Extracted: 07-18-11 16:30 Extracted: 07-18-11 16:30 07-18-11 20:30 07-18-11 20:30 Aqueous Matrix: Cleaned Up: Cleaned Up: Units: 07-19-11 13:17 Analyzed: 07-19-11 13:40 ug/L Analyzed: Analyst: CRL Analyst: CRL

	LCS					LCS Duplicate									
CAS Number	Analyte	Spiked	Mea	sured	Reco	very	Spiked	Meas	sured	Reco	very	RI	D	QC Lir	nits
			1st Col	2nd Col	1st Col	2nd Col		1st Col	2nd Col	1st Col	2nd Col	1st Col	2nd Col	Spike	RPD
12674-11-2	Aroclor 1016	5.0	4.7	4.7	95%	95%	5.0	5.0	5.0	100%	101%	6 %	6 %	40 - 140%	20 %
11096-82-5	Aroclor 1260	5.0	4.2	4.5	85%	90%	5.0	4.4	4.6	88%	92%	4 %	2 %	40 - 140%	20 %

QC Surrogate Compound					Surro	gate Rec	overy				QC Limits
Tetrachloro-m -xylene	0.20	0.17	0.18	87%	89%	0.20	0.19	0.19	94%	93%	30 - 150 %
Decachlorobiphenyl	0.20	0.10	0.10	49%	51%	0.20	0.10	0.11	51%	53%	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3510C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Report Notations: All calculations performed prior to rounding. Quality Control Limits are defined by the methodology,

or alternatively based upon the historical average recovery plus or minus three standard deviation units.



Quality Control Report Method Blank

Instrument ID: **EPA Method 8082** Category: GC-13 Agilent 6890 QC Batch ID: PB-2708-F Extracted: 07-18-11 16:30 Matrix: Aqueous

Cleaned Up: 07-18-11 20:30 07-19-11 12:53 Analyzed:

> Analyst: CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/L	0.2
11104-28-2	Aroclor 1221	BRL	ug/L	0.2
11141-16-5	Aroclor 1232	BRL	ug/L	0.2
53469-21-9	Aroclor 1242	BRL	ug/L	0.2
12672-29-6	Aroclor 1248	BRL	ug/L	0.2
11097-69-1	Aroclor 1254	BRL	ug/L	0.2
11096-82-5	Aroclor 1260	BRL	ug/L	0.2
37324-23-5	Aroclor 1262 [†]	BRL	ug/L	0.2
11100-14-4	Aroclor 1268 [†]	BRL	ug/L	0.2

QC Surrogate	Compound	Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	0.20	0.17	83 %	30 - 150 %
Column	Decachlorobiphenyl	0.20	0.09	45 %	30 - 150 %
Second	Tetrachloro-m-xylene	0.20	0.17	87 %	30 - 150 %
Column	Decachlorobiphenyl	0.20	0.10	47 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3510C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

Non-target analyte. Result is based on a single mid-range calibration standard.



Certifications and Approvals

Groundwater Analytical maintains environmental laboratory certification in a variety of states. Copies of our current certificates may be obtained from our website:

http://www.groundwateranalytical.com/qualifications.htm

CONNECTICUT

Department of Health Services, PH-0586

Potable Water, Wastewater, Solid Waste and Soil

http://www.ct.gov/dph/lib/dph/environmental health/environmental laboratories/pdf/Out State.pdf

MASSACHUSETTS

Department of Environmental Protection, M-MA-103

Potable Water and Non-Potable Water

http://public.dep.state.ma.us/labcert/labcert.aspx

Department of Labor,
Division of Occupational Safety, AA000195

http://www.mass.gov/dos/forms/la-rpt list aa.pdf

Asbestos Analytical Services, Class A

NEW HAMPSHIRE

Department of Environmental Services, 202708

http://www4.egov.nh.gov/DES/NHELAP

Potable Water, Non-Potable Water, Solid and Chemical Materials

NEW YORK

Department of Health, 11754

http://www.wadsworth.org/labcert/elap/comm.html

Potable Water, Non-Potable Water, Solid and Hazardous Waste

RHODE ISLAND

Department of Health,

Division of Laboratories, LAO00054

http://www.health.ri.gov/labs/outofstatelabs.pdf

Potable and Non-Potable Water Microbiology, Organic and Inorganic Chemistry

U.S. DEPARTMENT OF AGRICULTURE

USDA, Soil Permit, S-53921

Foreign soil import permit

VERMONT

Department of Health, VT-87643

http://healthvermont.gov/enviro/ph_lab/water_test.aspx#cert

Potable Water



Certifications and Approvals

MASSACHUSETTS

Department of Environmental Protection, M-MA-103

Groundwater Analytical maintains MassDEP environmental laboratory certification for only the methods and analytes listed below. Analyses for certified analytes are conducted in accordance with MassDEP certification standards, except as may be specifically noted in the project narrative.

Potable Water (Drinking Water)		Non-Potable Water (Wastewater)	
Analyte	Method	Analyte	Method
1,2-Dibromo-3-Chloropropane	EPA 504.1	Aluminum	EPA 200.8
1,2-Dibromoethane	EPA 504.1	Ammonia-N	Lachat 10-107-06-1-B
Alkalinity, Total	SM 2320-B	Antimony	EPA 200.7
Antimony	EPA 200.8	Antimony	EPA 200.8
Arsenic	EPA 200.8	Arsenic	EPA 200.7
Barium	EPA 200.7	Arsenic	EPA 200.8
Barium	EPA 200.8	Beryllium	EPA 200.7
Beryllium	EPA 200.7	Beryllium	EPA 200.8
Beryllium	EPA 200.8	Beta-BHC	EPA 608
Cadmium	EPA 200.7	Biochemical Oxygen Demand	SM 5210-B
Cadmium	EPA 200.8	Cadmium	EPA 200.7
Calcium	EPA 200.7	Cadmium	EPA 200.8
Chlorine, Residual Free	SM 4500-CL-G	Calcium	EPA 200.7
Chromium	EPA 200.7	Chemical Oxygen Demand	SM 5220-D
Copper	EPA 200.7 EPA 200.7	Chlordane Chlordane	EPA 608
• •	EPA 200.7 EPA 200.8	Chloride	EPA 300.0
Copper			
Cyanide, Total	Lachat 10-204-00-1-A	Chlorine, Total Residual	SM 4500-CL-G
E. Coli (Treatment and Distribution)	Enz. Sub. SM 9223	Chromium	EPA 200.7
E. Coli (Treatment and Distribution)	NA-MUG SM 9222-G	Chromium	EPA 200.8
Fecal Coliform (Source Water)	MF SM 9222-D	Cobalt	EPA 200.7
Fluoride	EPA 300.0	Cobalt	EPA 200.8
Fluoride	SM 4500-F-C	Copper	EPA 200.7
Haloacetic Acids	EPA 552.2	Copper	EPA 200.8
Heterotrophic Plate Count	SM 9215-B	Cyanide, Total	Lachat 10-204-00-1-A
Lead	EPA 200.8	DDD	EPA 608
Mercury	EPA 245.1	DDE	EPA 608
Nickel	EPA 200.7	DDT	EPA 608
Nickel	EPA 200.8	Delta-BHC	EPA 608
Nitrate-N	EPA 300.0	Dieldrin	EPA 608
Nitrate-N	Lachat 10-107-04-1-C	Endosulfan I	EPA 608
Nitrite-N	EPA 300.0	Endosulfan II	EPA 608
Nitrite-N	Lachat 10-107-04-1-C	Endosulfan Sulfate	EPA 608
рН	SM 4500-H-B	Endrin	EPA 608
Selenium	EPA 200.8	Endrin Aldehyde	EPA 608
Silver	EPA 200.7	Gamma-BHC	EPA 608
Silver	EPA 200.8	Hardness (CaCO3), Total	EPA 200.7
Sodium	EPA 200.7	Hardness (CaCO3), Total	SM 2340-B
Sulfate	EPA 300.0	Heptachlor	EPA 608
Thallium	EPA 200.8	Heptachlor Epoxide	EPA 608
Total Coliform (Treatment and Distribution)	Enz. Sub. SM 9223	Iron	EPA 200.7
Total Coliform (Treatment and Distribution)	MF SM 9222-B	Kjeldahl-N	Lachat 10-107-06-02-D
Total Dissolved Solids	SM 2540-C	Lead	EPA 200.7
Trihalomethanes	EPA 524.2	Magnesium	EPA 200.7
Turbidity	SM 2130-B	Manganese	EPA 200.7
Volatile Organic Compounds	EPA 524.2	Manganese	EPA 200.8
rolaine etgame compounds	217132112	Mercury	EPA 245.1
Non-Potable Water (Wastewater)		Molybdenum	EPA 200.7
Analyte	Method	Molybdenum	EPA 200.8
,		Nickel	EPA 200.7
Aldrin	EPA 608	Nickel	EPA 200.8
Alkalinity, Total	SM 2320-B	Nitrate-N	EPA 300.0
Alpha-BHC	EPA 608	Nitrate-N	Lachat 10-107-04-1-C
Aluminum	EPA 200.7	Non-Filterable Residue	SM 2540-D
/ dammani	Li / \ 200./	Oil and Grease	EPA 1664



Certifications and Approvals

MASSACHUSETTS

Department of Environmental Protection, M-MA-103

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Non-Potable	Water	(Wastewater)
Analyta		

Non-rotable water (wastewater)	
Analyte	Method
Orthophosphate	Lachat 10-115-01-1-/
pH	SM 4500-H-B
Phenolics, Total	EPA 420.4
Phenolics, Total	Lachat 10-210-00-1-I
Phosphorus, Total	Lachat 10-115-01-1-0
Phosphorus, Total	SM 4500-P-B,E
Polychlorinated Biphenyls (Oil)	EPA 600/4-81-045
Polychlorinated Biphenyls (Water)	EPA 608
Potassium	EPA 200.7
Selenium	EPA 200.7
Selenium	EPA 200.8
Silver	EPA 200.7
Sodium	EPA 200.7
Specific Conductivity	SM 2510-B
Strontium	EPA 200.7
Sulfate	EPA 300.0
SVOC-Acid Extractables	EPA 625
SVOC-Base/Neutral Extractables	EPA 625
Thallium	EPA 200.7
Thallium	EPA 200.8
Titanium	EPA 200.7
Total Dissolved Solids	SM 2540-C
Total Organic Carbon	SM 5310-B
Toxaphene	EPA 608
Vanadium	EPA 200.7
Vanadium	EPA 200.8
Volatile Aromatics	EPA 602
Volatile Aromatics	EPA 624
Volatile Halocarbons	EPA 624
Zinc	EPA 200.7
Zinc	EPA 200.8